UNIVERSITY OF TOMÁŠ BAŤA - FACULTY OF ARCHITECTURE AND URBANISM

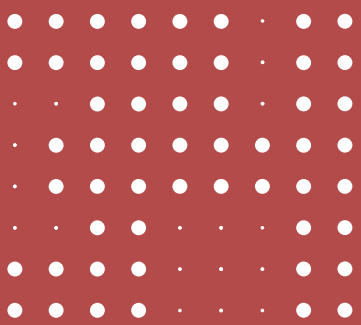
Master's Diploma Work

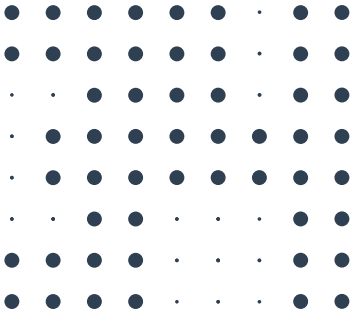
Bc. Pavel Jaroščák

Studio Kordovský

FA ČVUT

LS 2024 /2025





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Master’s Diploma Work

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LS 2024 /2025

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INTRODUCTION

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INTRODUCTION

Zlín, the capital of the Zlín region in south-east Czech Republic is an architectural and urbanist marvel, and a city completely unique to not only the country, but central Europe. Its iconic red bricks can be seen throughout the city, in all type of buildings, from the social housing garden cities of Podvesná to Letná, to the apartment buildings "Morýsovy domy" which flank the large main road "třída Tomáše Bati" around which this almost linear city is built. The red brick has been the city's identity from the early 20th century, when they were used as a cheap material for the construction of factory buildings of the Bat'a company.

I was born in Zlín and much of my early life revolved around it. From a young age I was fascinated by the towering buildings of the Svit complex. However, even then I remember a distinct unpleasant, almost eerie feeling that the seemingly abandoned feelings gave me. It was obvious to me that they were past their utilization glory days, which was only confirmed to me by the stories that my grandparents told me, of when they were young adults, and how virtually every family was employed in these buildings. The city became what it was thanks to the Bat'a company, specifically Tomáš Bat'a, who is greatly celebrated throughout Zlín. I had asked my grandparents "why are the factories not being used as much anymore, it seems like such a waste", to which they replied with a frustrated answer of "I don't know, they should be!".

Throughout my life I have seen the attitude towards the Svit complex change towards the better. Several buildings have had succesful renovations. Factory buildings 14 and 15 are a great example of adaptive reuse, as in 2011-2013 they were transformed into cultural institutions and now host a museum, library and gallery[1], preserving the building's character but giving it a new and contemporary function.

Industrial activity as the center of a city is an outdated concept. It pollutes high density areas, clogs up traffic routes, and disconnects parts of the city from one another. From the later decades of the 20th century we have seen a large crackdown on moving this activity out of centers of cities, to their peripheries, where they do not disturb residential and commercial zones, and are more efficiently connected to distribution routes. Examples of this include London's massive efforts to remove industrial activity from the Royal Docks along the Thames river, and subsequently convert the area according to more contemporary needs of city, as well as similar regeneration projects in Prague, including Smíchov, Karlín and Holešovice. It is a step that many cities see as crucial for the future.

How can Zlín be interpreted amidst this context?

The city has stagnated; its population peaked at 81, 146[2] in 1991, and has seen a slow but steady decline to 74 255[3] in 2023, while most regional capitals are seeing a steady increase. Zlín has many glaring issues: rising housing costs, an outdated city hospital, deteriorating rail infrastructure, ageing population in the entire region, and one of the largest brownfields in the entire country. All of these challenges, paired with incompetent bureaucracy and a declining labourmarket[4] create a sense of uncertainty for the city's future.

The former Bat'a factory complex which was able to attract tens of thousands to settle down in what was still a village at the start of the 20th century, has to once again be the spark for the progress of the city. Only this time, it already has one major advantage that makes this insurmountably easier. The brownfield's buildings were built on a very efficient and reusable, open floor plan, concrete structure system. These buildings do not have to be torn down and built over unless absolutely necessary. It provides the city with a an extraordinary opportunity to showcase the importance of adaptive reuse as a sustainable city regeneration method. As mentioned earlier, we have seen successful reuse of several of the buildings already, and the same should be done for the rest. Adaptive reuse holds an immense potential to not only finally rid the city of archaic industrial activities in its center and break down the barrier that they presents to the resident, but also to expand the cities residential capacities through affordable housing and bolster its cultural and educational institutions as well as commercial and leisure activity to attract a younger and more diverse population and workforce. This diploma work will aim to take a step in this direction by proposing an adaptive reuse project for Building 34, located in the center of the complex, and its conversion from the original function as a central storage building for the factory complex to an educational institution.

[1] https://zam.zlin.eu/objekt/42-budova-14-a-15#:~:text=Při%20bombardování%20továrního%20areálu%20firmy,záhy%20po%20skončení%20války%20zbořeny.

[2] "Historický Lexikon Obcí České Republiky - 1869 - 2015." Český Statistický Úřad, 21 Dec. 2015, https://csu.gov.cz/produkty/historicky-lexikon-obci-1869-az-2015. Accessed 23 Dec. 2024.

[3] "Zlín." Regionální informační servis, www.risy.cz/cs/vyhledavace/uzemi/585068-zlin.print. Accessed 27 Mar. 2025.

[4] "Labourmarket in Zlín." URBACT, 21 Jan. 2020, https://urbact.eu/articles/labourmarket-zlin. Accessed 27 Mar. 2025.

UNIVERSITY OF TOMÁŠ BAŤA (UTB)

Tomáš Bata University, officially established on January 1, 2001, has roots in higher education dating back to 1960. That year, a branch of the Slovak University of Technology was established in Zlín, focusing on chemical and engineering technologies. By 1969, this local branch had evolved into an independent Faculty of Technology under the Brno University of Technology.

The 1990s marked a turning point for higher education in Zlín, driven by a clear vision from Petr Sáha, then Dean of the Faculty of Technology and later TBU Rector: We will establish a university. This vision steadily became reality. In 1995, the Faculty of Management and Economics was created, and by 2001, these two faculties united to form the university. Additional faculties were established in subsequent years: the Faculty of Multimedia Communications (2002), the Faculty of Applied Informatics (2006), the Faculty of Humanities (2007), and the Faculty of Logistics and Crisis Management (2009).

Tomáš Bat'a Jr. played a pivotal role in supporting the university's creation, granting permission for it to bear his father's name. He served as Chairperson of the TBU Board of Governors until his passing in 2008, leaving a lasting legacy in shaping the institution's identity and direction[1].

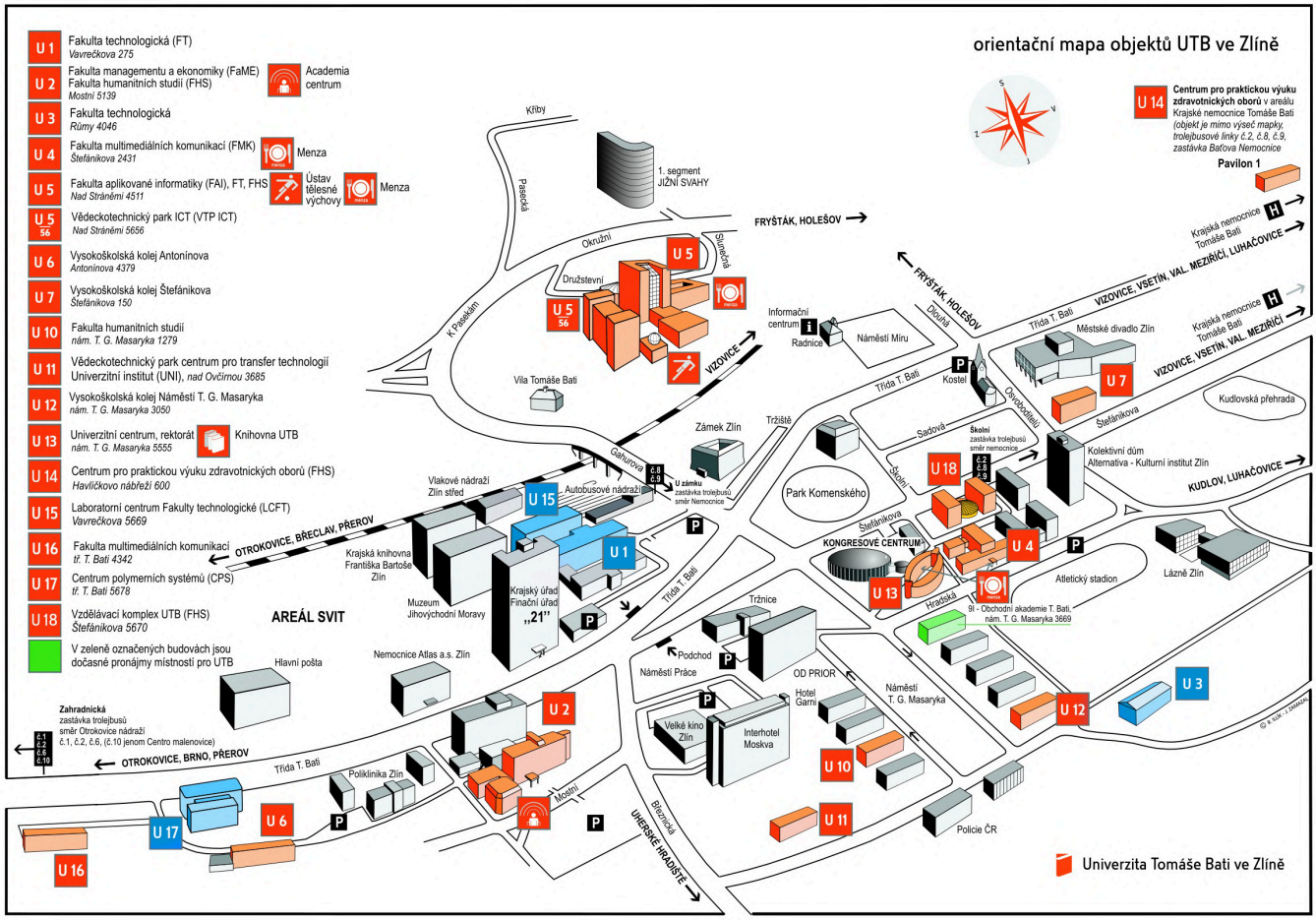
"More than 9,000 students study at six TBU faculties. International students coming from all over the world and forming 10 % of the student body help create an international environment at the University. On the other hand, Czech students are motivated to learn English and other foreign languages. All forms of international cooperation receive maximum support; our goal is to offer all students interested in spending at least a part of their studies abroad a possibility of doing so.[2]"

The sizeable amount of students in relation to the city's population (1 student/8.2 residents*) means that Zlín can be considered a student city. UTB is evidently a large part of the city's contemporary identity, something the city's residents are proud of. However, when comparing their share of international students (~10%) with other major universities in the country (ČVUT = ~19%, VUT = ~26%, UPOL = ~19%, UK = ~21%), they fall short. This should be addressed, as Zlín's central location in relation to major central European cities holds massive potential to attract more students from countries such as Austria, Slovakia, Poland and even Hungary.

*Prague = 1 student/11.1 residents

[1] "University History." Tomas Bata University in Zlín, https://www.utb.cz/en/university/about-the-university/general-information/ university-history/. Accessed 23 Dec. 2024.

[2] Tomas Bata University in Zlín. "General Information." UTB.cz, Tomas Bata University in Zlín, https://www.utb.cz/en/university/about-the-university/general-information/. Accessed 5 Jan. 2025.



EXISTING FACULTIES, DEPARTMENTS AND BUILDINGS

Faculty	Department
Technology	Food analysis and chemistry
	Physics and materials engineering
	Chemistry
	Environmental protection engineering
	Polymer engineering
	Food technology
	Fat, Surfactant and Cosmetics Technology
	Production Engineering
Management and Economics	Economics
	Management and Marketing
	Industrial Engineering and Information Systems
	Business Administration
	Finance and Accounting
	Statistics and Quantitative Methods
	Regional Development, Public Sector Administration and Law
	Physical Training
Multimedia Communications	Marketing Communications
	Theoretical Studies
	Animation
	Arts Management
	Audiovisual Arts
	Digital Design
	Fashion Design
	Game Design
	Glass
	Graphic Design
	Industrial Design
	Jewellery Design
	Photography
	Product Design
	Shoe Design
	Spatial Design

Faculty	Department
Applied Informatics	Informatics and Artificial Intelligence
	Computer and Communication Systems
	Department of Automation and Control Engineering
	Electronics and Measurements
	Security Engineering
	Mathematics
	Process Control
Humanities	Pedagogical Sciences
	School Education
	Health Care Sciences
	Modern Languages and Literatures
Logistics and Crisis Management	Logistics
	Crisis Management
	Environmental Security
	Population Protection

Building	Description
U2	Faculty of Management and Economics (FaME)
U4	Faculty of Multimedia Communications (FMC)
U5	Faculty of Applied Informatics (FAI)
U56	ICT Technology Park
U6	Hall of Residence, Antonínova Street
U7	Hall of Residence, Štefánikova Street
U10	Faculty of Technology
U11	University Institute (UNI)
U12	Hall of Residence, TGM Square
U13	University Centre
U14	Faculty of Humanities
U15	Laboratory Centre of the Faculty of Technology (LCFT)
U16	Faculty of Multimedia Communications
U17	Centre of Polymer Systems (CPS)
U18	Faculty of Humanities (FHS)
UH1	Faculty of Logistics and Crisis Management (FLCM)

Tomas Bata University in Zlín. Tomas Bata University. www.utb.cz. Accessed 5 Jan. 2025.

CONCEPT - FACULTY OF ARCHITECTURE AND URBANISM IN ZLÍN

A Faculty of Architecture and Urbanism at the University of Tomaš Bat'a would not only honor Zlín's legacy of innovation in urban planning and functionalist architecture but also offer architecture students a remarkable opportunity to engage with and study this legacy firsthand. Zlín's rise as an industrial center in the early 20th century, guided by Tomáš Bat'a's vision, provides a completely unique location for architectural education. While most Czech cities are built upon historical cores and architecture, many of which are largely preserved, Zlín is almost entirely built around the 20th century factory complex of the Bat'a company. At the time this small Moravian city showcased progressive architecture and urban design, with an emphasis on functionality, workers' well-being, and efficiency, which allowed it to flourish and its population to grow by 1800% in less than a century. The city remains a living model of these concepts, offering an in-situ classroom where students could study the evolution of urbanism and architecture firsthand, tackling the complexities of historic preservation, adaptive reuse, and modernization within the context of a city that pioneered industrialized housing.

Through a Faculty of Architecture and Urbanism, the university could leverage the city as a case study for exploring the challenges faced by cities transitioning from industrial hubs to contemporary urban organisms. As Zlín's post-industrial transformation continues, the faculty's curriculum would largely focus on investigating urban regeneration techniques, analyzing the balance between preserving the city's heritage—embodied by the characteristic functionalist architectural style of the Bat'a factories and worker housing—and incorporating contemporary designs and future-oriented solutions such as adaptive reuse and environmentally conscious building technologies.

Striving to create a mutually beneficial relationship, the faculty shall actively seek to cooperate with the city and owners of the Bat'a/Svit era buildings, to provide students with the opportunity of proposing their own designs for regeneration of the brownfield, in faculty-wide semestral competitions. This would create a one-of-a-kind educational experience for those interested in adaptive reuse and urban regeneration of industrial cities—a field of study growing ever more relevant—while simultaneously potentially revitalizing the city with a much-needed fresh perspective.

It is essential for the faculty to recognize its geographical potential as a key attraction for prospective students. Zlín is central to many larger central European cities, including the capital cities of four different countries, all reachable by public transportation in a maximum of 5 hours (Fig. 01). This means that Slovakian, Austrian, Polish and even Hungarian students can travel to their home country whenever necessary, without significant time or financial commitments. Given this unique advantage, the faculty will offer a significant portion of its courses in English to attract international students and take full advantage of the European Union's open border policies, enhancing its appeal across the region.

Building 21, 1939 - showcase of Zlín's iconic functionalism

Areal Svit (former Bat'a factories), 2010 - covers nearly 79 ha

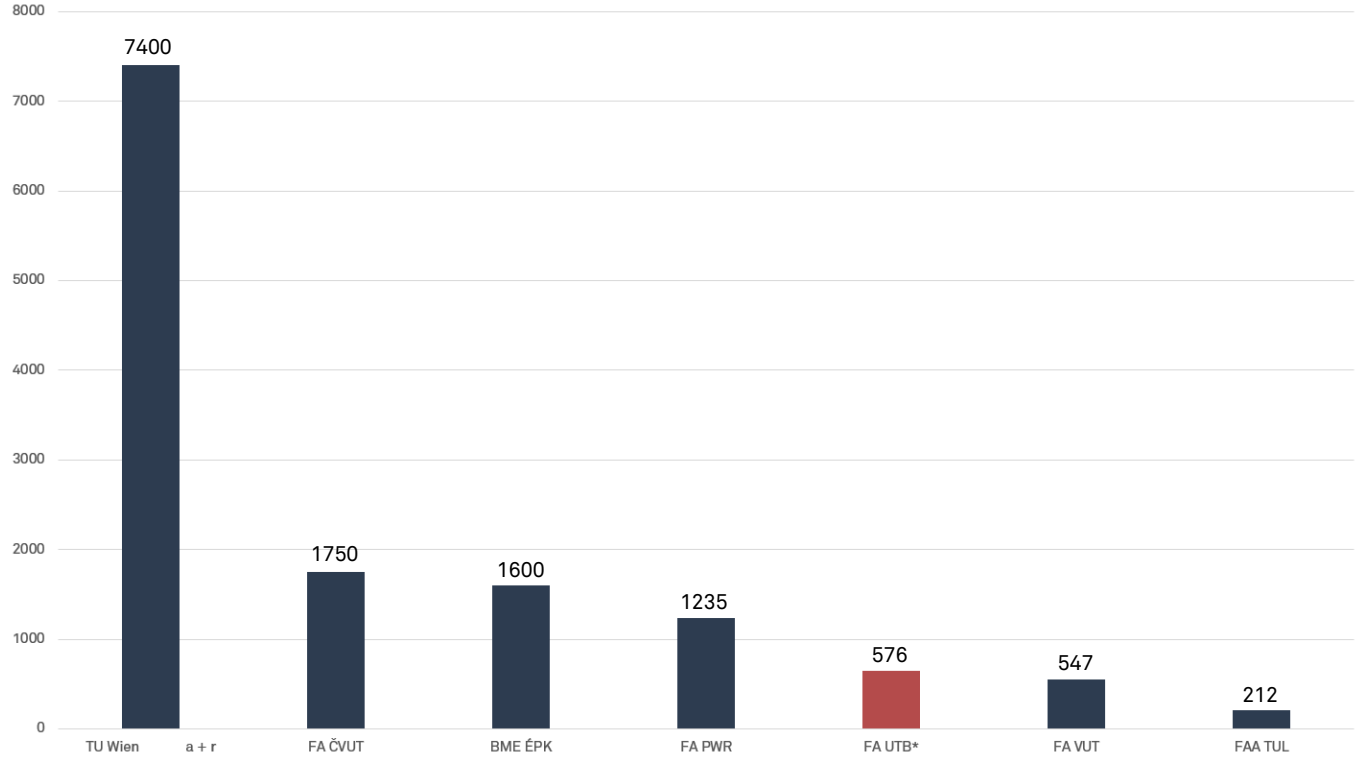
UTB's Faculty of Architecture and Urbanism will set itself apart with the "Integration Center". This university led initiative will aim to provide a helping hand to alumni to kick start their career or business. Freshly graduated alumni of any of UTB's faculties will have the opportunity to rent a space directly from the university at a cut price. These spaces could be used as architectural studios, labs, engineering workshops, offices, and perhaps even small production spaces. They will provide a temporary home-base for new businesses for alumni, at lower prices than elsewhere, until they are able to sustainably expand and relocate. The lowered risks will also come with some major benefits. The business could hire students of the university for internships and possible full time work post-graduation, creating a strong and long lasting bond between the university and its students.

A Faculty of Architecture and Urbanism in Zlín would be based around the city's unique architectural history, which will act as the basis for an education focused on preserving heritage while adapting and converting it to contemporary and future needs. The faculty will utilize its active cooperation with the city, its location within central Europe and English-taught programmes, as well as the "Intergration Center" as the key attraction points for creating a diverse international student base interested in a distinctive architectural education experience

Fig. 01 - European cities within reach by public transport

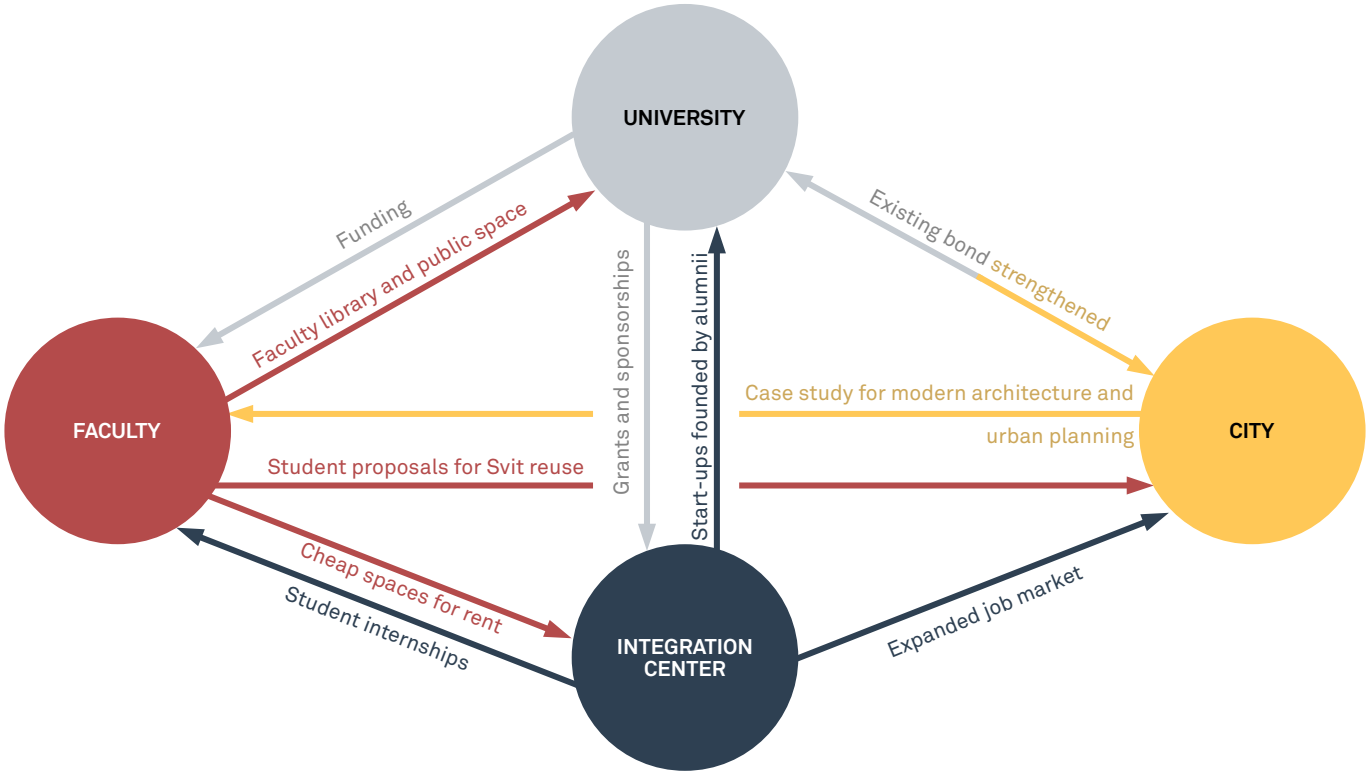
CONCEPT - WIDER SCALE

Fig. 02 - Number of students in several faculties of architecture across central Europe



*Proposed number of students

Fig. 03 - Relationships between involved parties

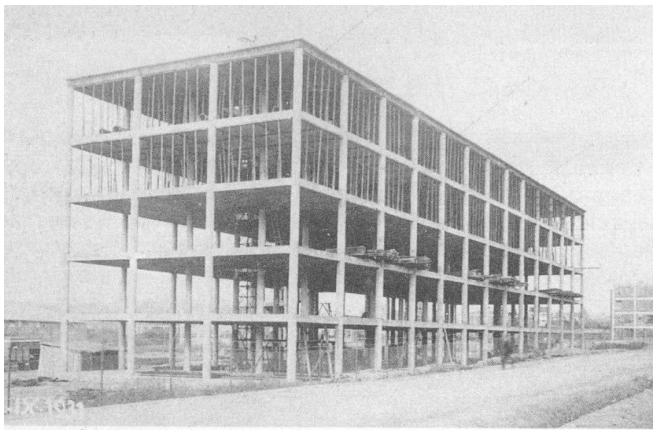


HISTORY OF THE BAŤA /SVIT FACTORY COMPLEX

The Bata shoe making company grew into a business empire in the early 20th century, after the three Bat'a siblings, Tomáš, Antonín and Anna, established the company in 1894. In 1900, they had moved to their first factory building near the Zlín train station[1], the location where they would develop a revolutionary factory complex over the following decades. The company profited greatly after making shoes for the army during the first World War, in which they became the largest shoe-maker company in the Austria-Hungarian empire, allowing Tomáš Bat'a to further invest into his innovation and expansion. The war was however followed by years of decline, formed by a culmination of low purchasing power of the population and a demand crisis. Bat'a however made some drastic changes to his business model which allowed the company to recover and further expand.

In 1906, Bata created his first prototype for mass construction, from his experienced gathered thanks to trips across the USA. A 60m x 20m three-storey wooden construction[2], used for the company's first factory. By 1918, with probable but unrecorded help from architect František Gahura, the company developed a new archetype: an 80m x 20m five-storey steel structure with a capacity of 1300 workers. They built three of these buildings. 1923 saw a construction of a clay quarry and brick factory with a capacity to produce 10 million bricks yearly. This brought about a complete redevelopment and expansion of the complex from 1927 under a new archetype designed by Gehura; reinforced skeletal structures built under a 6,15m x 6,15m module, with buildings ranging from 2 to 5 storeys. The buildings were enclosed non-load-bearing red brick walls and large windows. This archetype removed the need for perimeter walls and allowed for natural lighting of vast spaces. The unification of typology for all construction allowed for flexibility, repeatability, variability, low construction cost and speed. This modular archetype was used through out the entire factory complex, including the famous building 21, designed by architect Vladimír Karfík; a 77,5 m tall structure which at the time of its construction in 1939 was the tallest building in central Europe[3].

Tomáš Bat'a became Zlín's mayor in 1923, which allowed him to develop housing for the workers of his company with the help of Gehura. Between 1921 and 1930, the city's population grew from 4 678 to 21 582[4], while the total count of housholds grew from 674 to 1 762. This rapid development combined with the further growth of the Bata company sling-shot Zlín's growth which stagnated in the 1990's, when it reached its highest population count of 81 146.



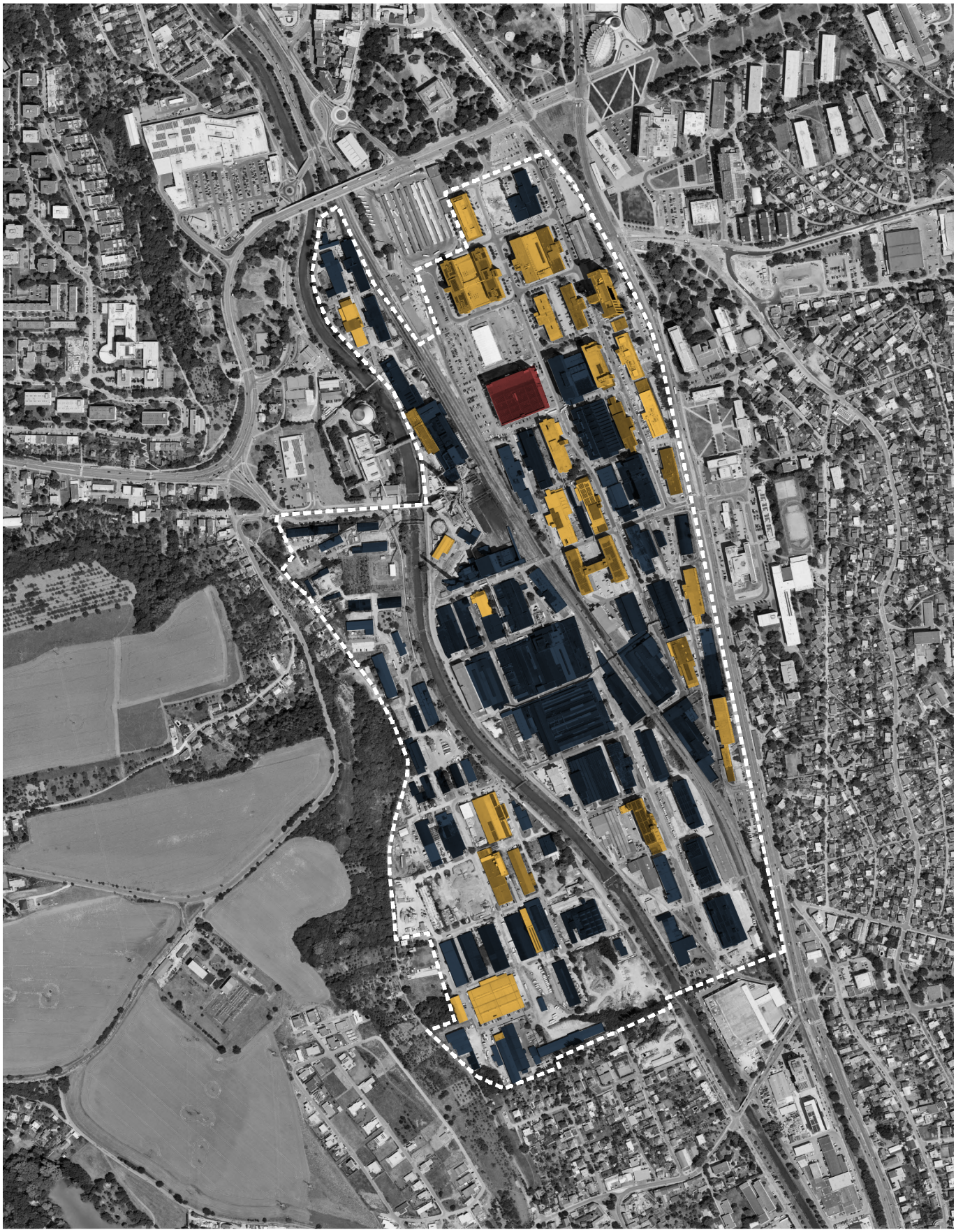
Typical skeletal reinforced concrete construction, c. 1931

Tomáš Bat'a died in an air-plane crash in 1932, however the company's era ended over a decade later, after WWII, when the factory complex became a state enterprise under the name Svit. During the war, the complex was subject to air raids, and extensive damage was done several buildings. In 1946 architect J. Voženílek developed an altered archetype, with the module being expanded to 7,85m x 7,85m, under which the damaged central shoe storage building was rebuilt; it was also used for buildings 14 and 15, now renovated into museum and library functions. The pinnacle construction of the Svit era are the "twin" production buildings 32 and 33, by architect Přikryl, from 1987. Building 32 has been converted and renovated, but building 33 remains in disarray, much like many others.

Today, the complex is subject to reconstructions and reuse projects, as well as a few unfortunate demolitions. These effort first began in 2004 with the focal point of the entire complex: building 21. Architects Petr Všetečka, Ivan Bergmann and Ladislav Pastrnek completed a renovation of the building, respecting the original look of the building by reconstructing parts of the facade with the original materials and preserving as many original features as possible; in some cases replacing several light fixtures and other metal elements with replicas. The interior layout was largely altered to more contemporary needs, with only one floor being preserved. This successful renovation was followed by several other, most notably buildings 14 and 15. After the Zlín region bought the buildings in 2008 in their derelict state, a competition for their reuse was hosted and won by Juraj Sonlajtner, Jakub Obůrka and A.D.N.S. PRODUCTION[5]. The project focused on connecting the two buildings with a large concrete platform that serves as a storage building and an public square for the two original buildings that now take on the functions of museum, library and gallery. It was completed between 2011-13 and to this day stands as the prime example of what could be done with other buildings in the complex; a great example of preserving the identity of the complex while adapting it to the city's needs with modish additions and alterations.

[1] Fialová, Jolana. Bat'ův Areál ve Zlíně – Historie a Perspektivy. Masarykova Univerzita, Ekonomicko-správní Fakulta, 2014.
[2] "Tovární Budovy." Zlín.eu, https://www.zlin.eu/tovarni-budovy-0. Accessed 23 Dec. 2024.
[3] "Budova 21." Zlínský Architektonický Manuál, https://zam.zlin.eu/objekt/43-budova-21. Accessed 23 Dec. 2024.
[4] "Historický Lexikon Obcí České Republiky - 1869 - 2015." Český Statistický Úřad, 21 Dec. 2015, https://csu.gov.cz/produkty/historicky-lexikon-obci-1869-az-2015. Accessed 23 Dec. 2024.
[5] Zlínský architektonický manuál. "Budova 14 a 15." Zlínský architektonický manuál, https://zam.zlin.eu/objekt/42-budova-14-a-15. Accessed 31 Mar. 2025.

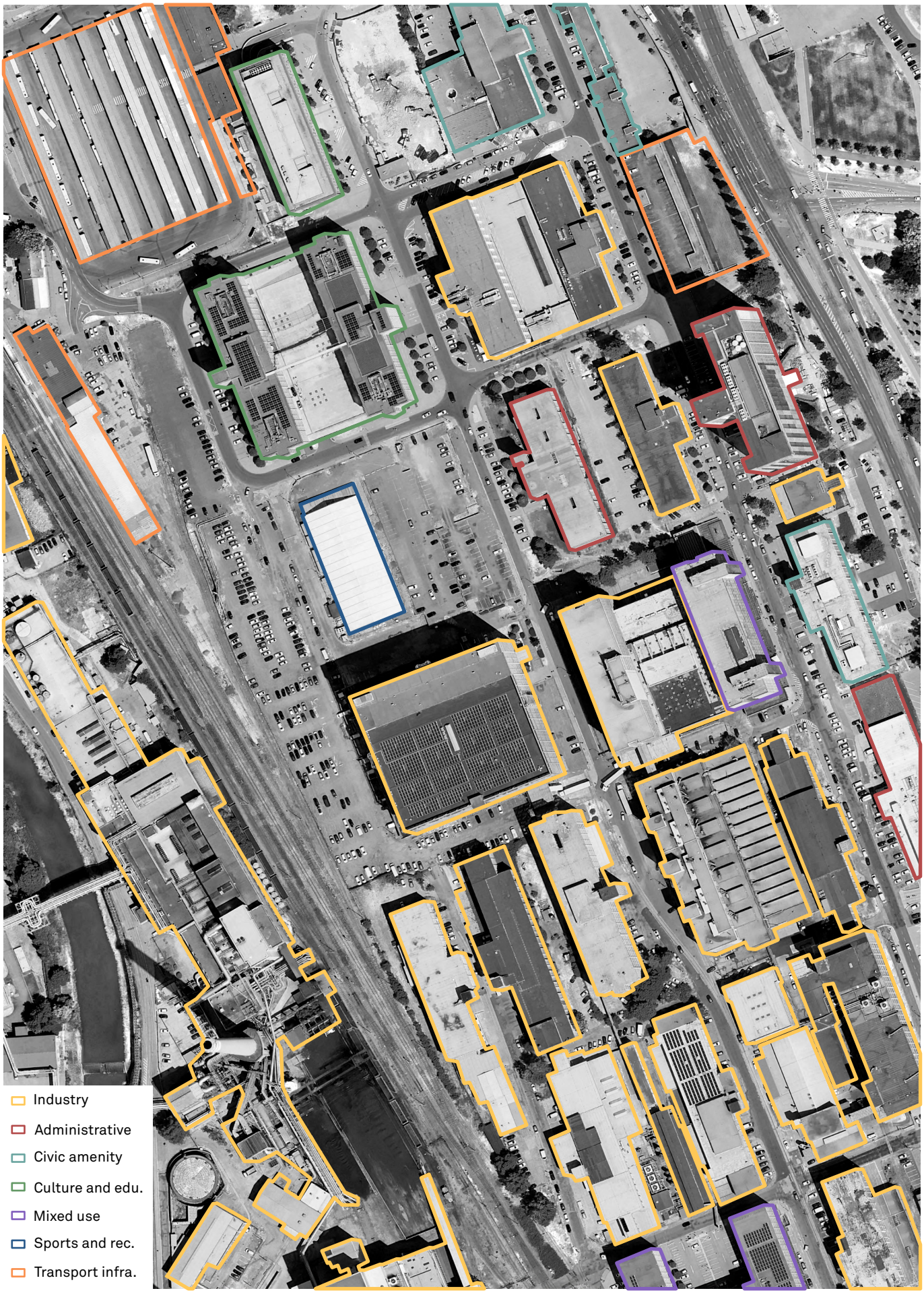
AREAL SVIT - RENOVATED VS DETERIORATING



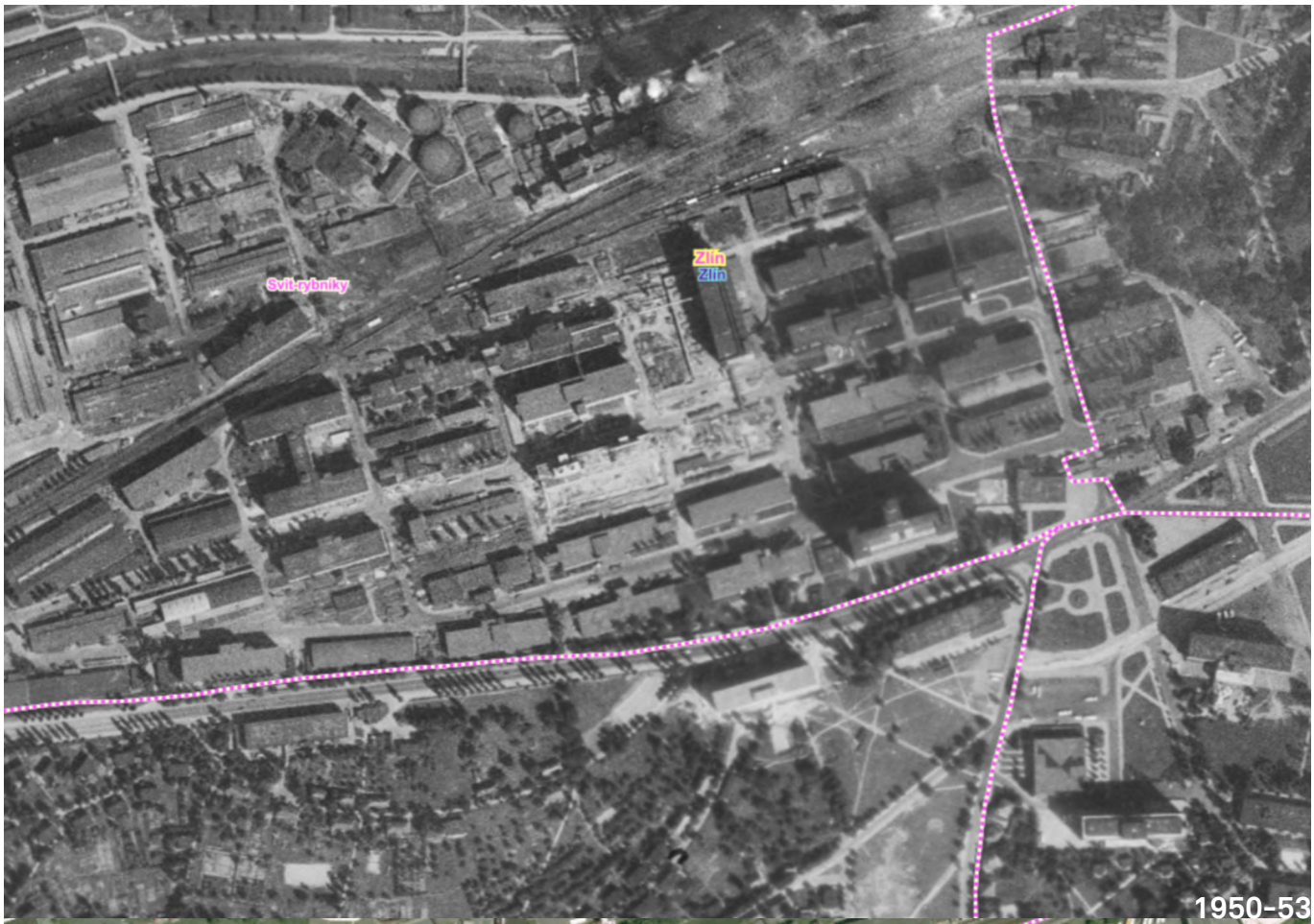
- Building 34
- Renovated, new or repurposed
- Deteriorating

SITE ANALYSIS - PUBLIC TRANSPORT

SITE ANALYSIS - FUNCTIONS



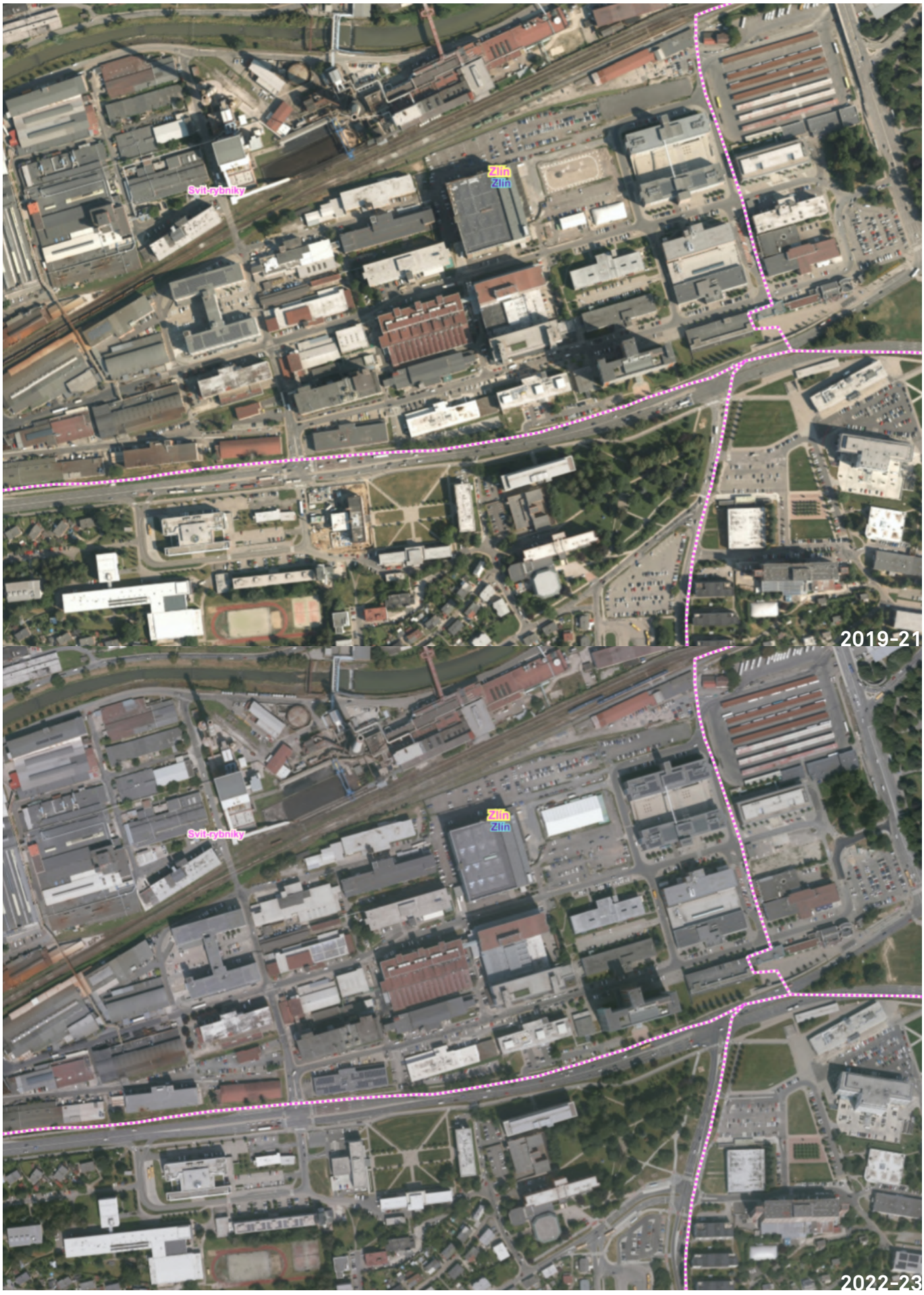
HISTORICAL ORTHOPHOTO



2004-06

2007-09

HISTORICAL ORTHOPHOTO


Zlín
Zlín
Svit-rybníky
2019-21
Zlín
Zlín
Svit-rybníky
2022-23

CASE STUDY - 14|15 BAŤŮV INSTITUT

Zlín Svit Buildings 14 and 15

Reconstruction and reuse

Author: Juraj Sonlajtner, Jakub Obůrka, A.D.N.S. PRODUCTION

Completion date: 2013

The Bat'a factory complex in Zlín stands as a remarkable example of Czech industrial architecture. In 2013, buildings No. 14 and No. 15, originally constructed in 1948–1949, were renovated and re-purposed into the Bat'a Institute. This transformation created a cultural hub for the Zlín Region, housing a gallery, a museum, and a library. The two structures were connected via a newly constructed library storage wing, which introduced a vibrant public space. This platform now serves as a venue for gatherings, exhibitions, concerts, and various cultural events.

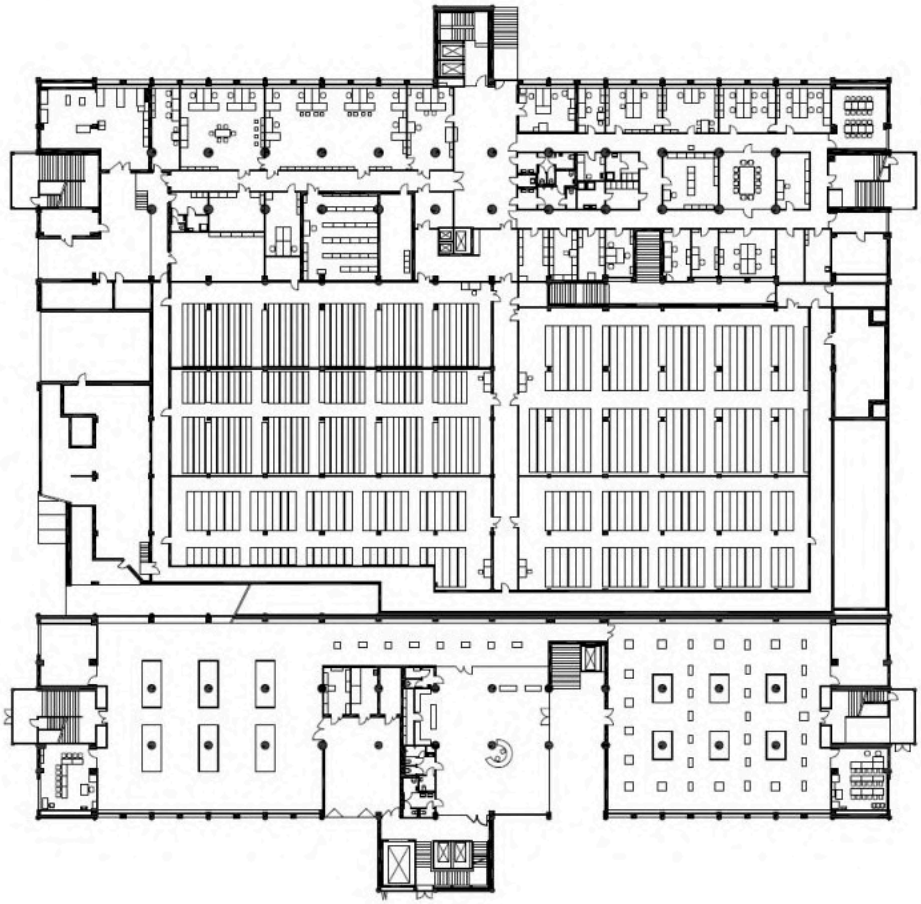
The original architectural style of the buildings was carefully preserved, including their characteristic materials and facade patterns. The new platform, made from exposed concrete, distinctly signals its modern origins. Structural reinforcements were carried out on the ageing concrete framework, which had reached the end of its lifespan. One of the most significant changes was the deepening of the foundations to create a new underground parking level.

The internal layout respects the factory's original axial design, with the central axis, now occupied by elevator towers, forming the main circulation cores of both buildings. Unlike the original factory setup, where the movement of goods and materials took precedence, the redesign priorities the flow of people and books. The interior spaces retain their monumental and industrial grandeur, a principle that guided the new spatial organisation. As in the original concept, the grid's end sections are designated for sanitary and service functions, ensuring continuity with the factory's legacy.

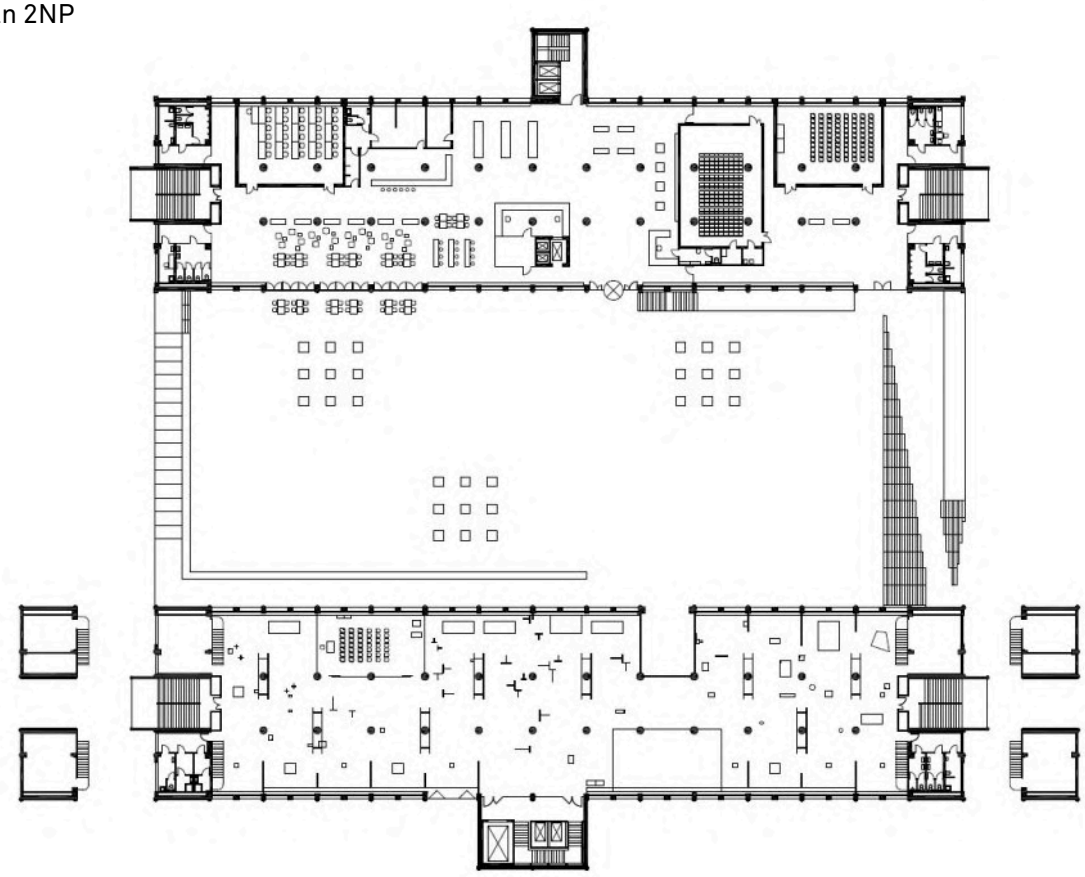
This project is the prime example of how the rest of the Svit complex buildings should be reused. It leaves the original character of the factories intact, while adding to it in grand yet subtle way with the addition of the concrete platform which is required for its contemporary function. It does not immediately grab the attention from the what is important, which are the buildings themselves.

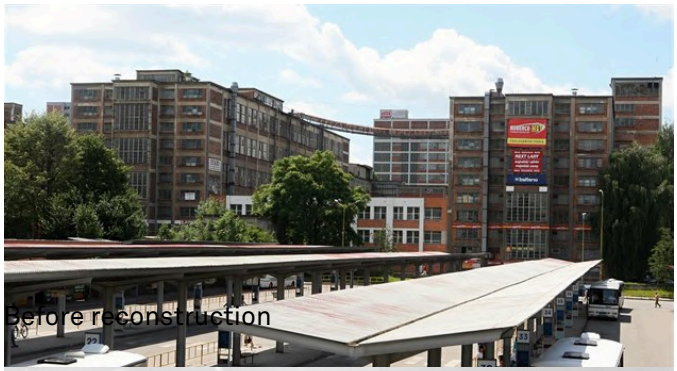
The new function of the buildings is easily yet appropriately implemented into the open floor plan, and with some interior reconstructions, much like the exterior, the interior keeps a functionalist and industrial feel that is brought into the present day.

Floor plan 1NP



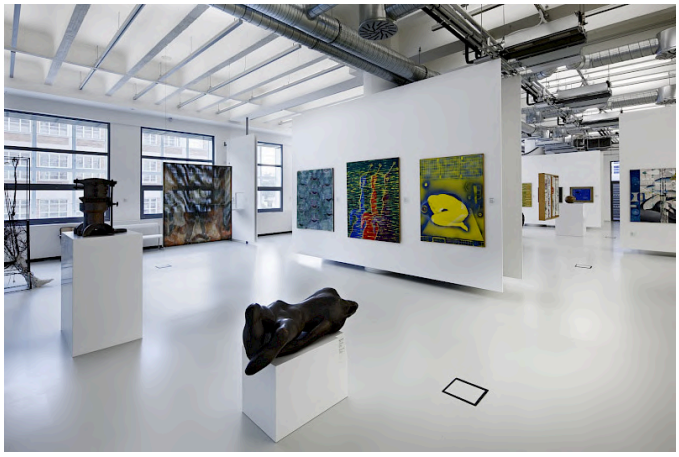
Floor plan 2NP





Before reconstruction

Original construction in 1946




Výrobní etážové budovy (14. a 15.) pro obuvnickou konfekci
Svit - Gottwaldov

CASE STUDY - MAX32

Building 32

Reconstruction and reuse

Author: CMC Architects

Start date: 2012

"The dynamic MAX32 building offers loft-style living of various sizes, combining a modern, vibrant lifestyle with industrial charm. This renovated multi-functional building is located in the heart of Zlín's former Bat'a factory complex. The concept is designed with a focus on young, innovative individuals with fresh ideas and motivation.

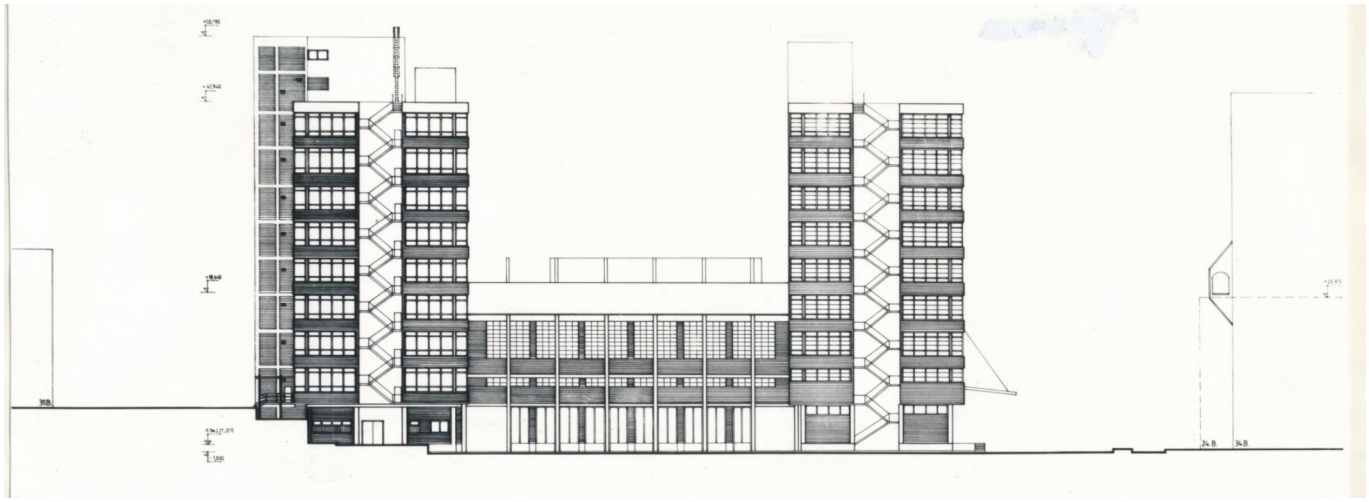
The upper floors feature loft apartments, while the levels below house office spaces for those seeking a place to bring their ideas to life. Additionally, the second floor includes retail units with barrier-free access, making it a versatile and inclusive space for living, working, and commerce.[1]"

In 2012, the renovation of building No. 32 commenced, transforming it into the multifunctional Max 32 complex. Designed by architects Vít Máslo, David Chisholm, and Evžen Duba from CMC Architects, in collaboration with Graffiti Networks, the project features retail spaces, services, loft apartments, modern offices, and a fitness and wellness centre. The design emphasises flexibility, supporting both open-plan and segmented layouts. The ground floor houses a regional branch of Česká pošta, retail units, and office spaces. This redevelopment seamlessly blends residential, professional, and recreational elements, focusing on creating a comfortable and convenient environment for tenants.

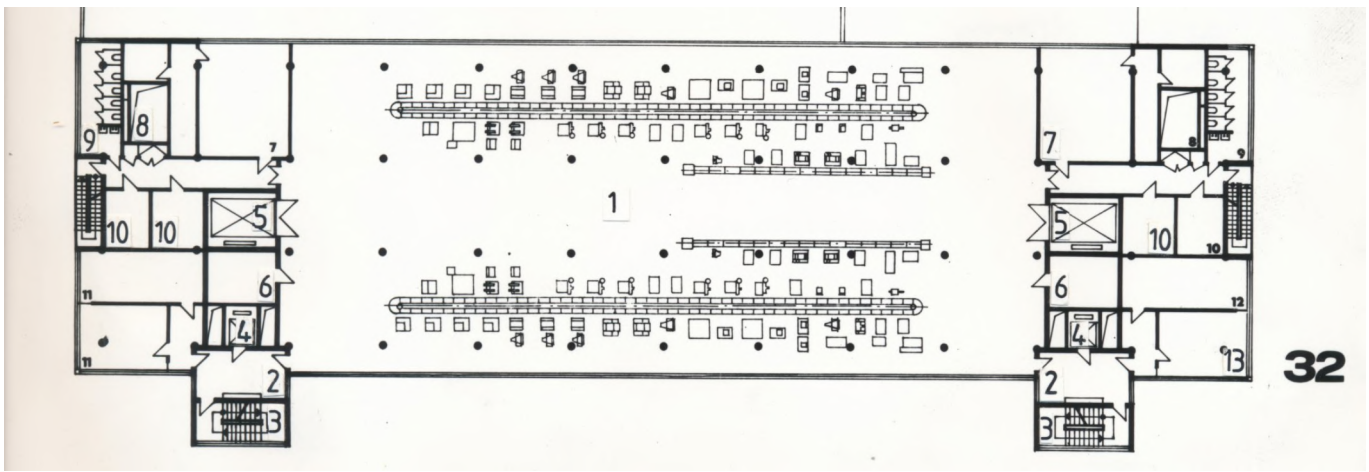
This project is well executed reconstruction and reuse of the former shoe factory that, much like buildings 14 and 15, retain their original character on the exterior. The interior however takes advantage of the tall ceilings to create loft apartments, which in my opinion is the optimal solution. The prime example of this is a loft apartment located on the 8th floor designed by petrjanda/brainwork. This loft apartment playfully uses its large volume to create unorthodox surfaces and spaces; an overall well executed one-off apartment in the max32 building.

[1] MAX32. O budově, MAX32, https://www.max32.cz/o-budove. Accessed 12 Jan. 2025.

Original construction 1971



Original elevation (b. 32 left)



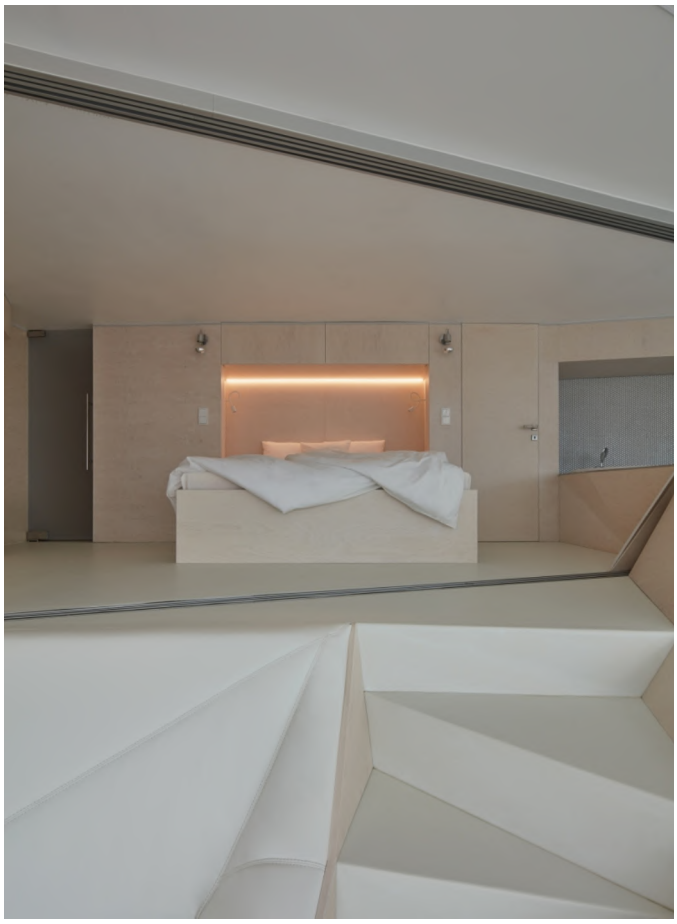
Original floor plan

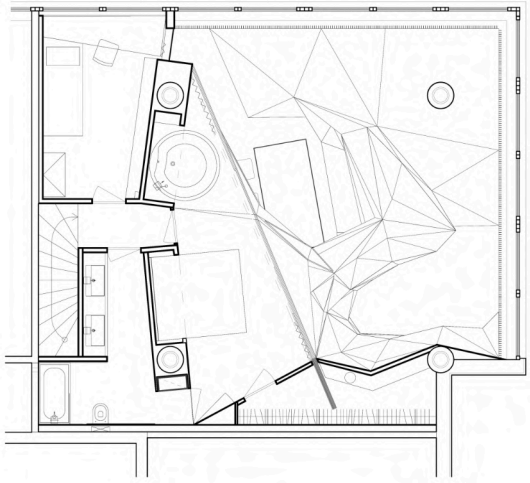
Loft 32

Reconstruction and reuse

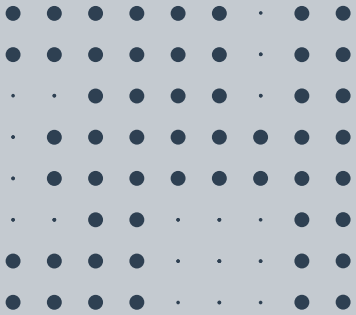
Author: petrjanda/brainwork

Completion date: 2018





BUILDING 34



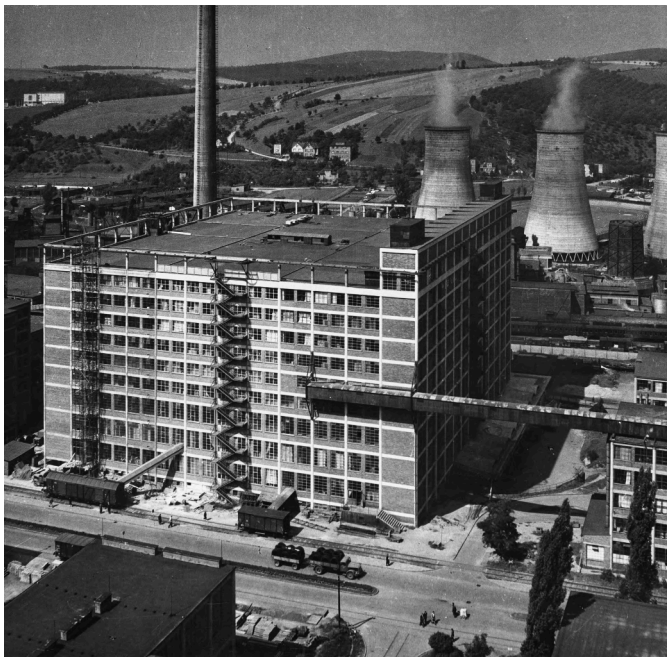
BUILDING 34 - CENTRAL SHOE STORAGE

Building 34 has served mainly as a storage warehouse and office building for its entire life time. It was built by architect Vladimír Kubečka in 1949 on a 6m x 6m module which was unorthodox to the rest of the complex. It's design heavily focused on utilizing modern storage technologies, with cart transport in the interior of the building and a heliport on its roof. With the dimensions of 78m x 72m and a usable area of around 58 500 m^2, it was and still is a monumental structure and a testament to the scale and success of manufacturing in Zlín. It's flawless open floorplan layout is still being used for its intended purposes today, as the only changes to the building were new window designs on the top floor, which is currently occupied by a developer company and owner of the building, CREAM Real Estate.

Building 34 is located adjacent to the 14|15 Institute, as well as being surrounded by many other reconstructed buildings. As a major monument in the complex, it should be the next building to undergo reconstructions and reuse efforts. Since the building no longer needs to function as a massive warehouse for a single shoe company, it is more logical to repurpose it. Its unique and highly adaptable structure offers great potential for functions that are prerequisite for the city's overall development. Much like in other cities across the world, it is crucial that industrial functions be moved to the city's periphery, or at the minimum out of it's core, where foot traffic is at its highest.

As already showcased through the 14|15 Institute, the open plan layout as a platform for adaptive reuse is ideal. As the building's load bearing structure consists only of concrete columns, stairwells and elevator shafts, it can be adapted to almost any function with the use of partition walls. The major challenge of building 34 presents it self as a lack of daylight. Its massive 78m x 72m footprint means that only the modules along the building's perimeter have access to acceptable daylight. This is not a real problem for storage functions. However, for a residential, educational or even office function, it is highly problematic.

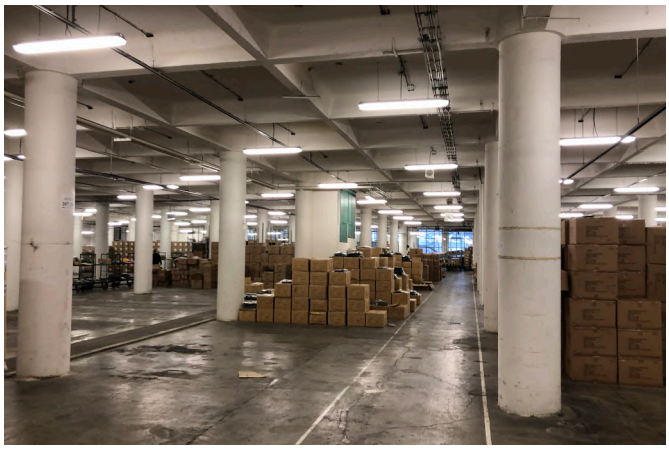
The lot east of building 34 is currently vacant, after buildings 24 and 25 that stood upon it were demolished in 2014, much to the disagreement of many monument preservation experts as well as the public[1]. CREAM Real Estate announced it's plans to construct a multi functional shopping mall on this plot in 2013, and states that it should be completed by 2027. It is a controversial project, due to the fact that it required the demolition of three original Svit buildings, the fact that there are already various shopping malls in the city and due to the fact that construction still has not started and the lot is currently being used for parking. This diploma project suggests either cancelling the entire project or moving it to a more logical location and at a smaller scale: as a part of a new main train station.

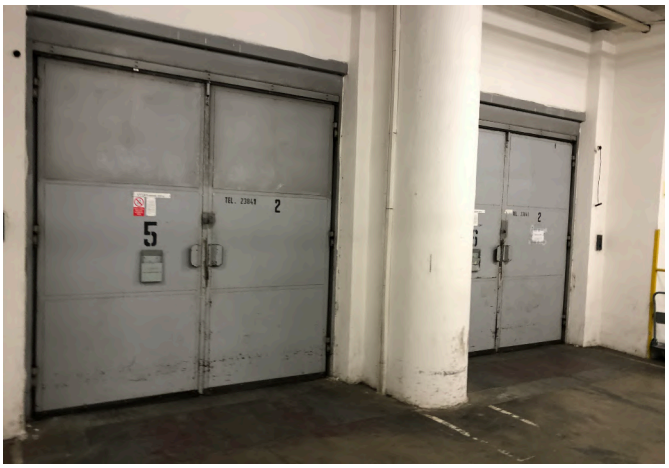


[1] Libiger, Milan. "Památkáři i Zlín stále odmítají demolici tří budov bat'ovského areálu." iDNES.cz, 22 Nov. 2012, https://www.idnes.cz/zpravy/domaci/pamatkari-ani-zlinska-radnice-nesouhlasi-s-demolici-24-a-26-budovy-svitu.A121121_1856855_zlin-zpravy_ras. Accessed 31 Mar. 2025.

BUILDING 34 PHOTOS - EXTERI0R

BUILDING 34 PHOTOS - INTERIOR





ORTHOPHOTO

SITUATION – ORIGINAL

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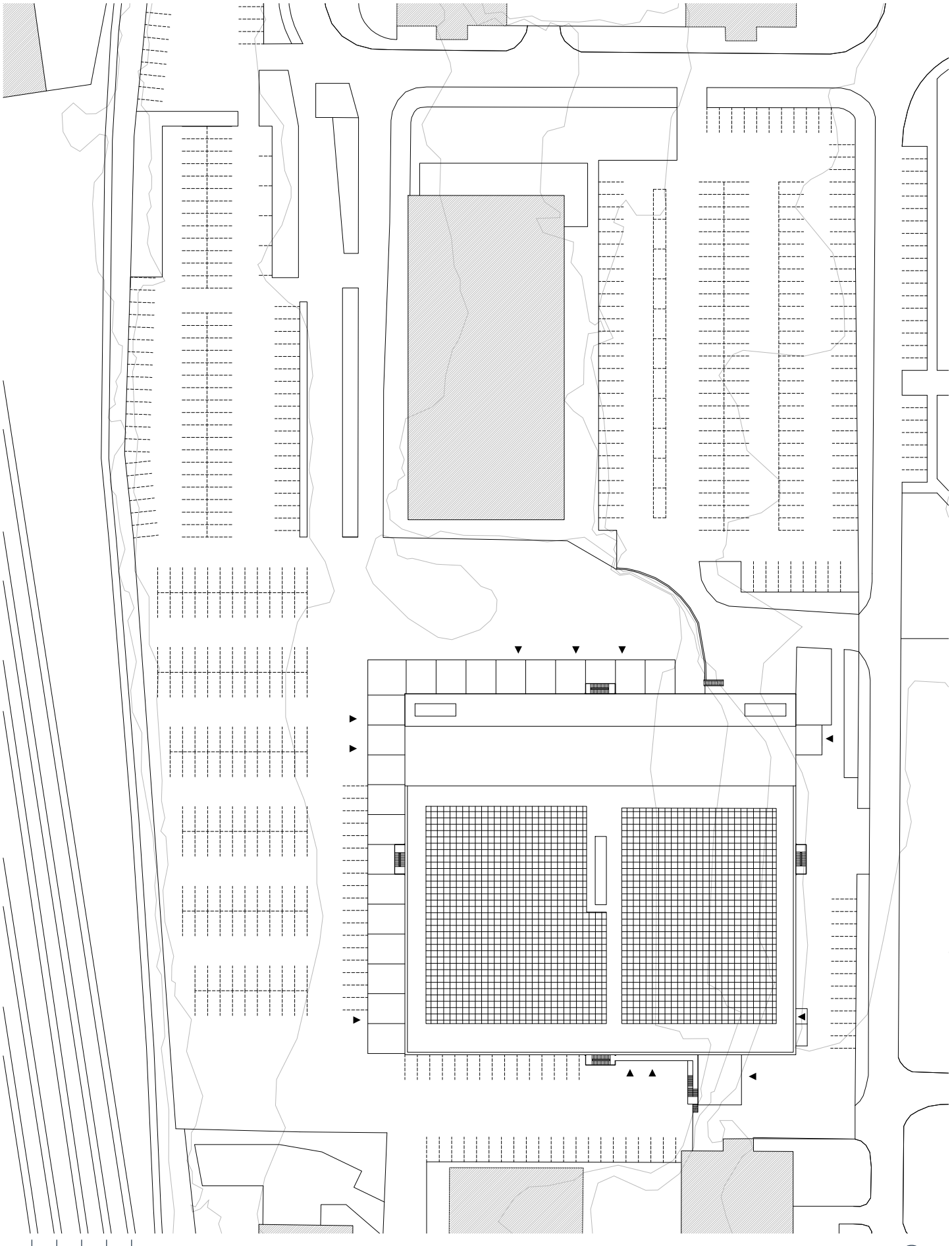

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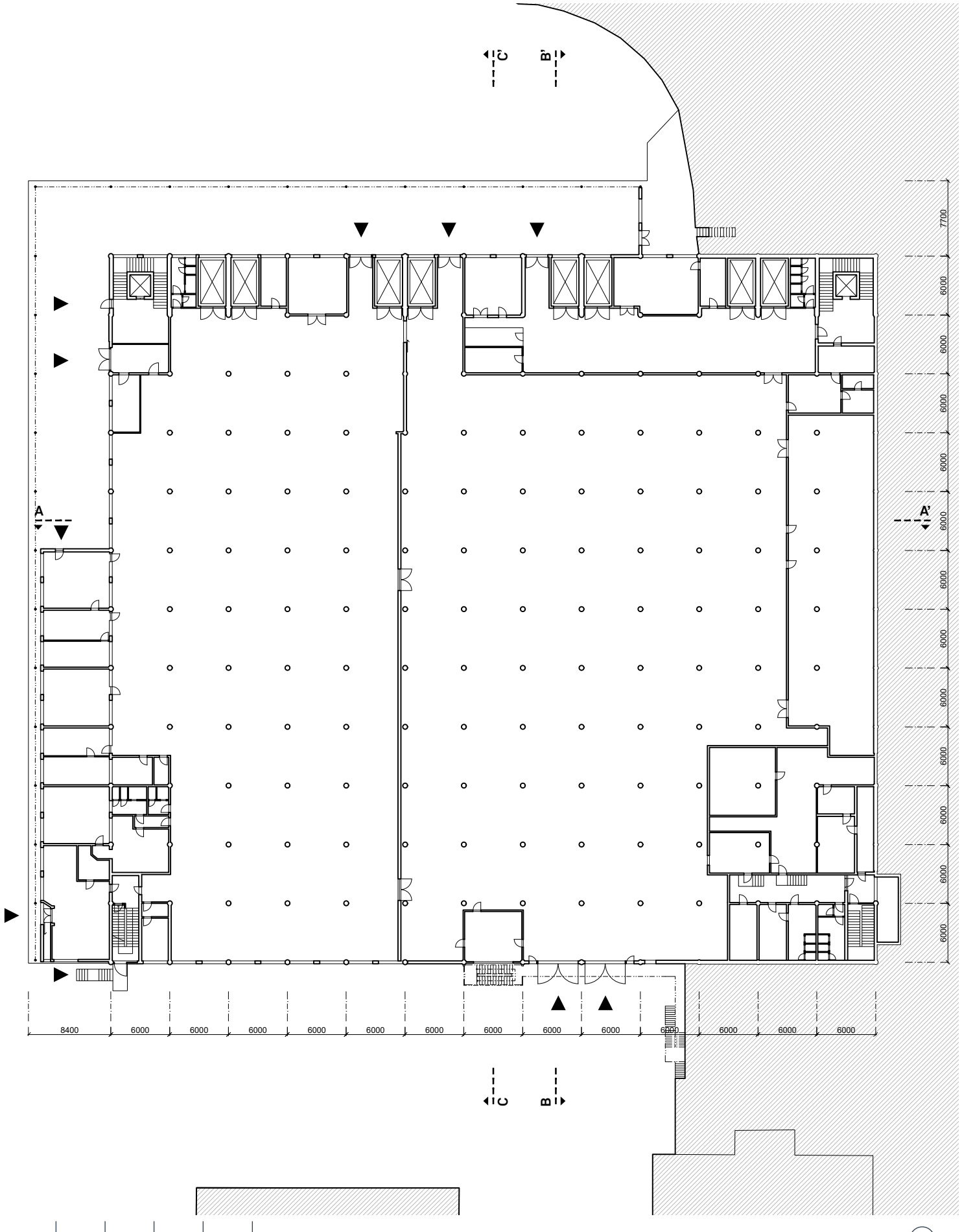
SCHWARZPLAN - ORIGINAL

1:2500

FLOORPLAN GF - ORIGINAL

1:500



FLOORPLAN 1F – ORIGINAL

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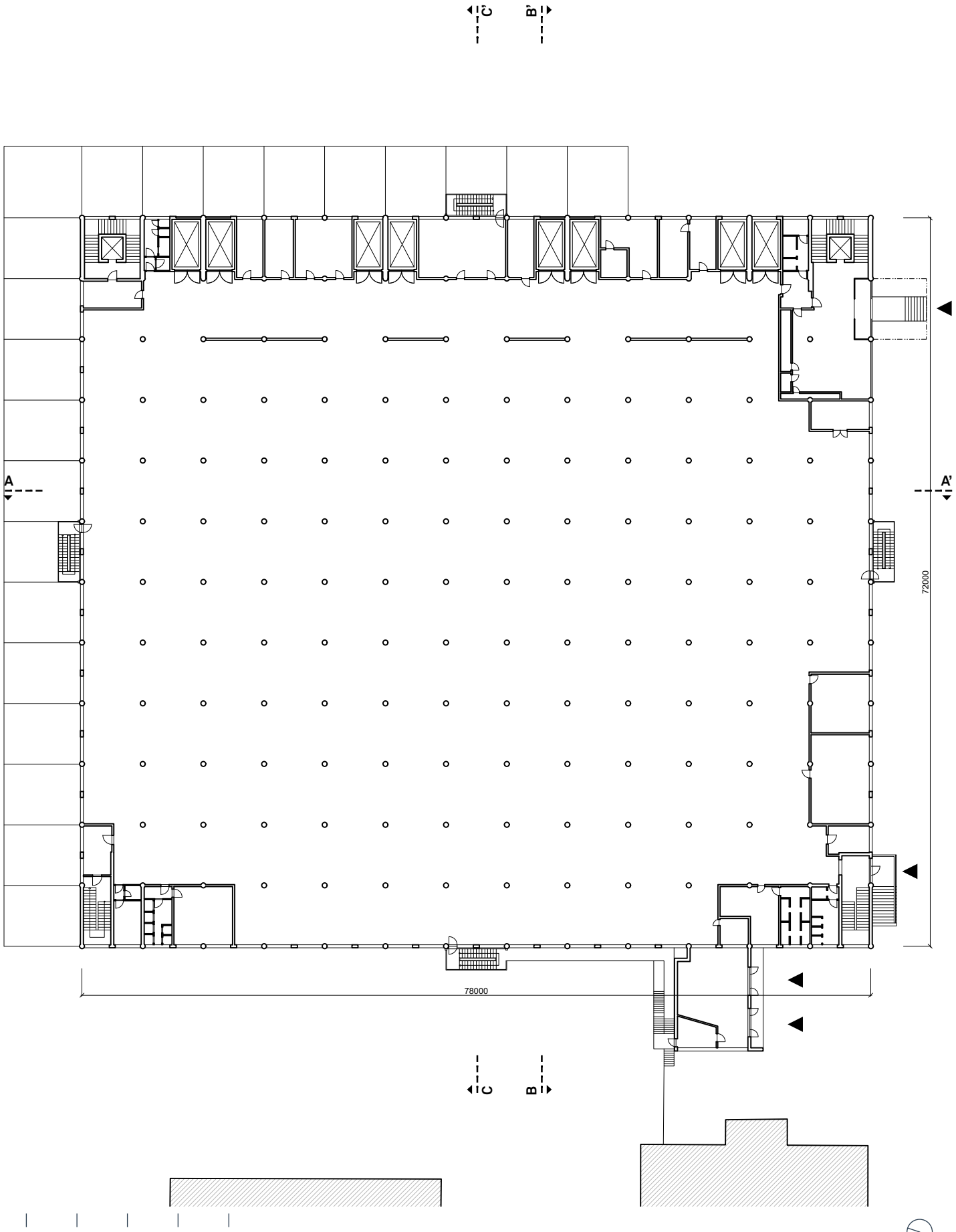
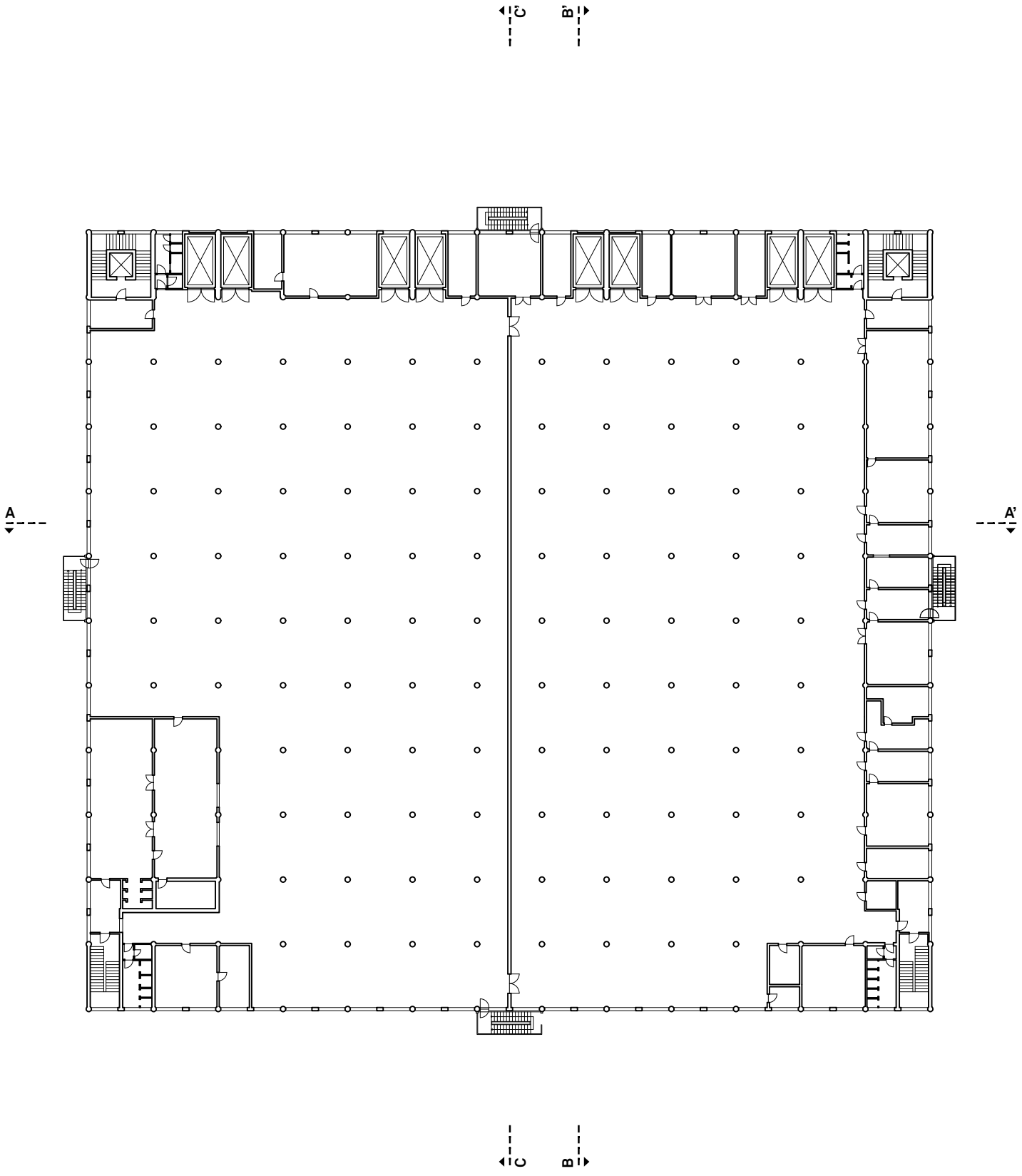


FLOORPLAN 2F – ORIGINAL

1:500



FLOORPLAN 3F – ORIGINAL

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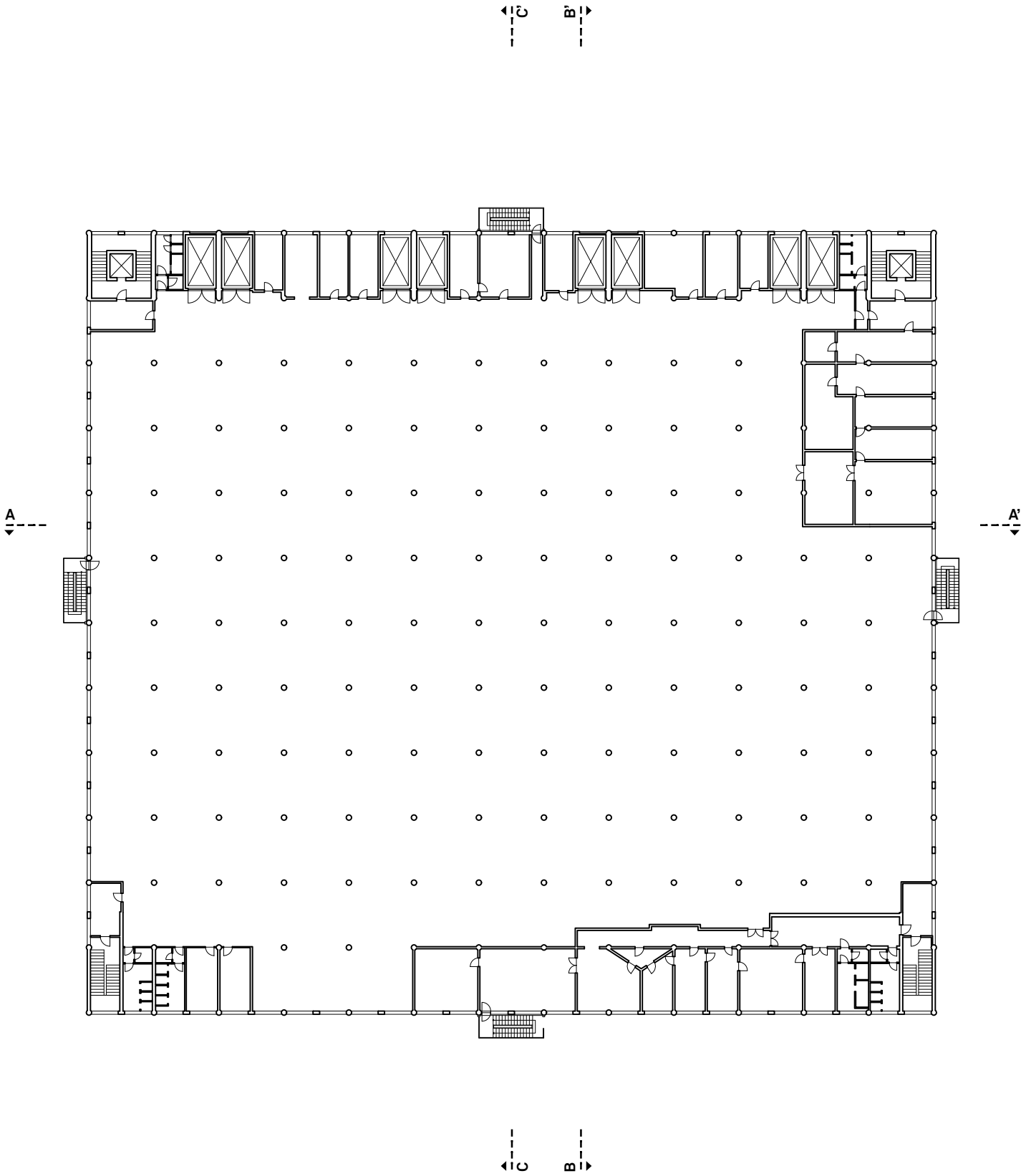

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FLOORPLAN 4F - ORIGINAL

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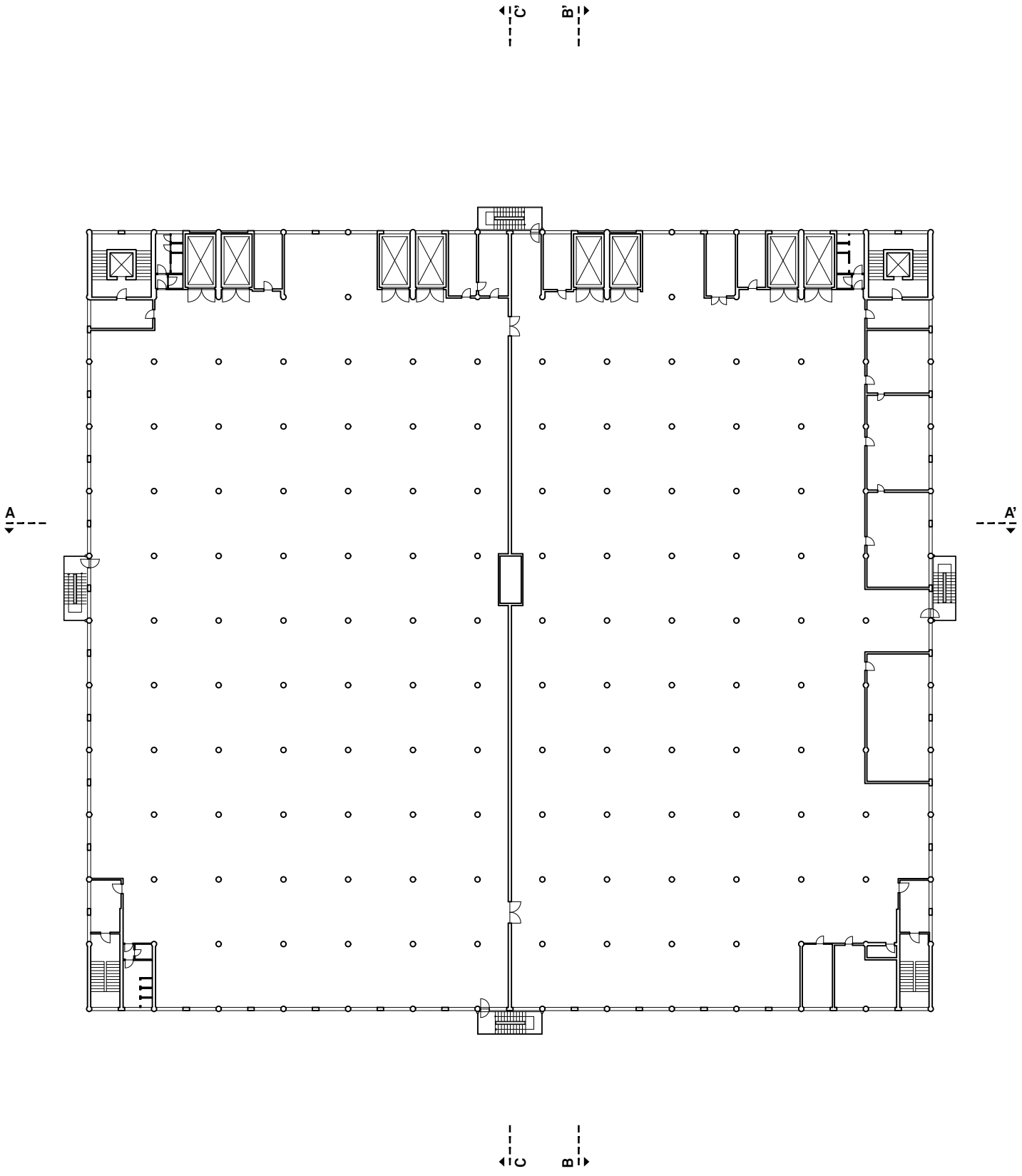

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FLOORPLAN 5F – ORIGINAL

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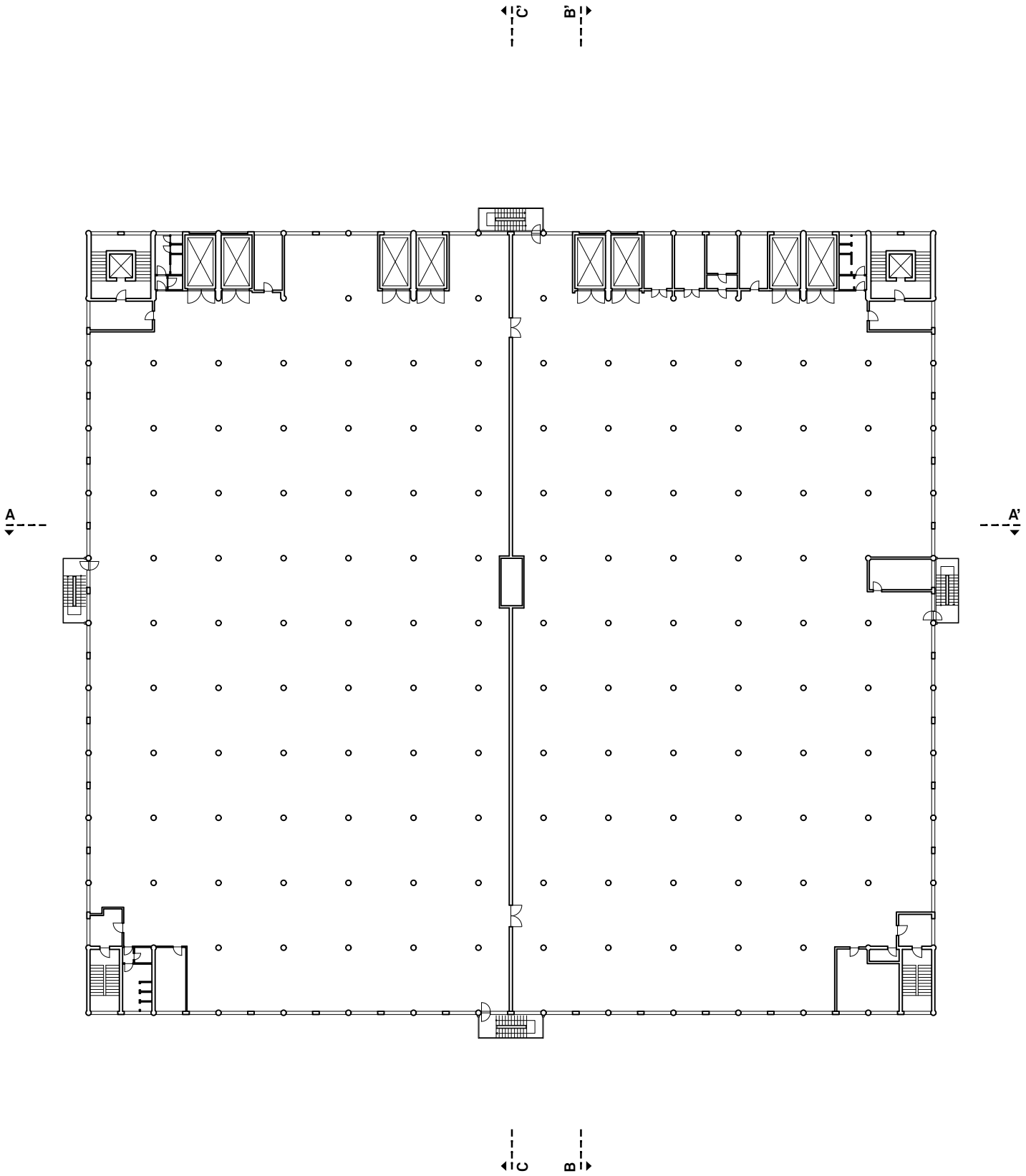

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FLOORPLAN 6F – ORIGINAL

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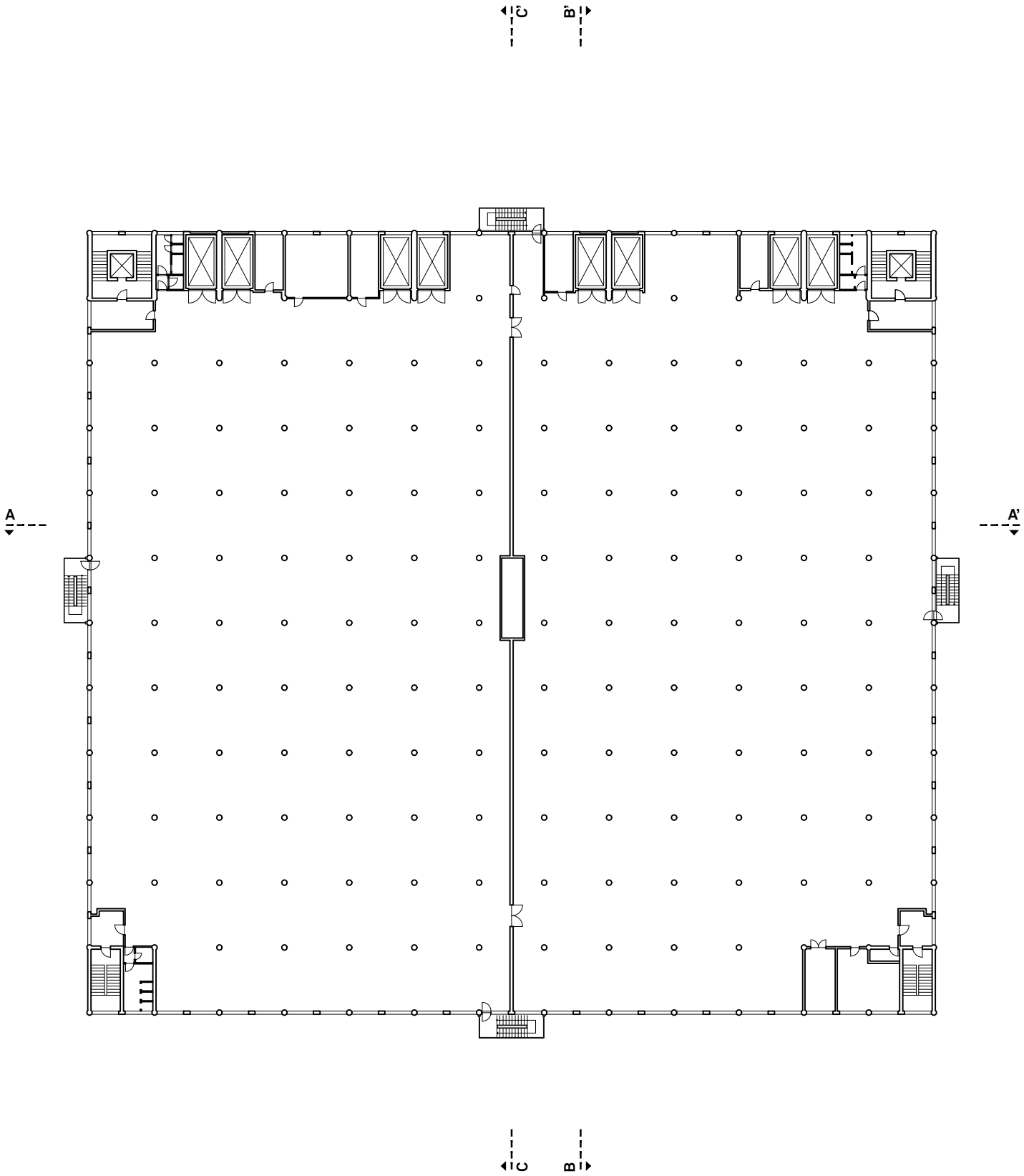

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FLOORPLAN 7F – ORIGINAL

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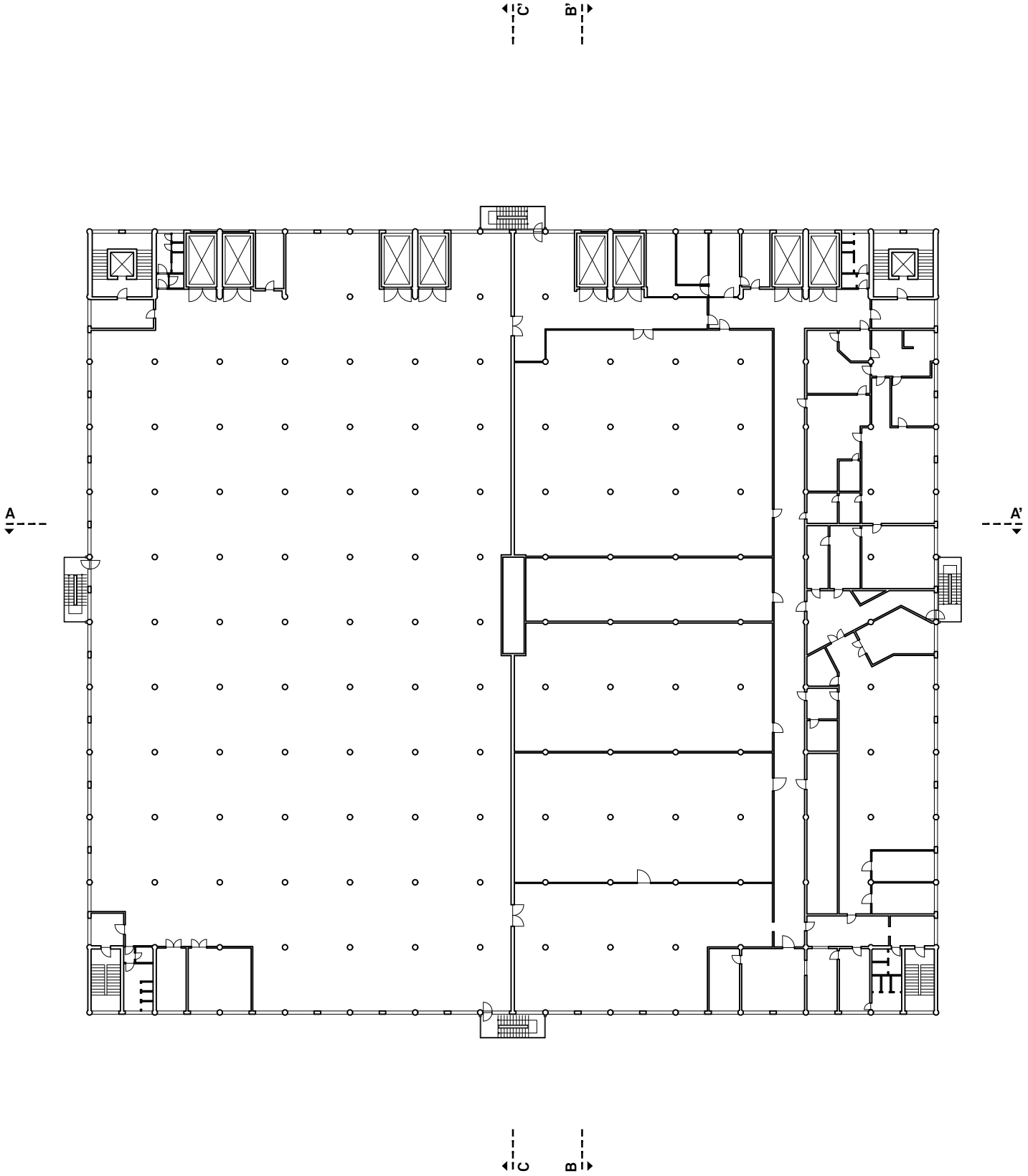

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FLOORPLAN 8F – ORIGINAL

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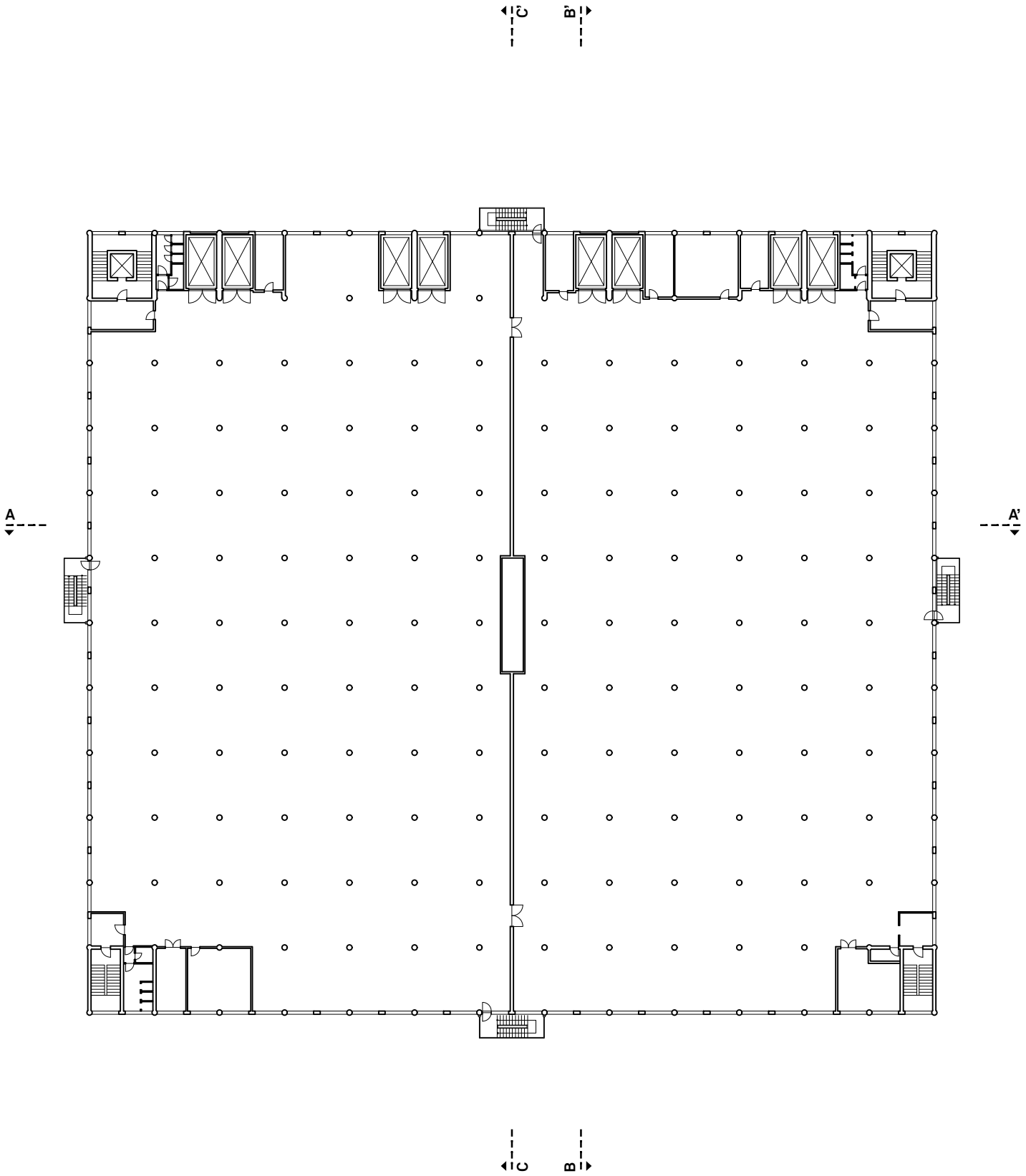

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FLOORPLAN 9F – ORIGINAL

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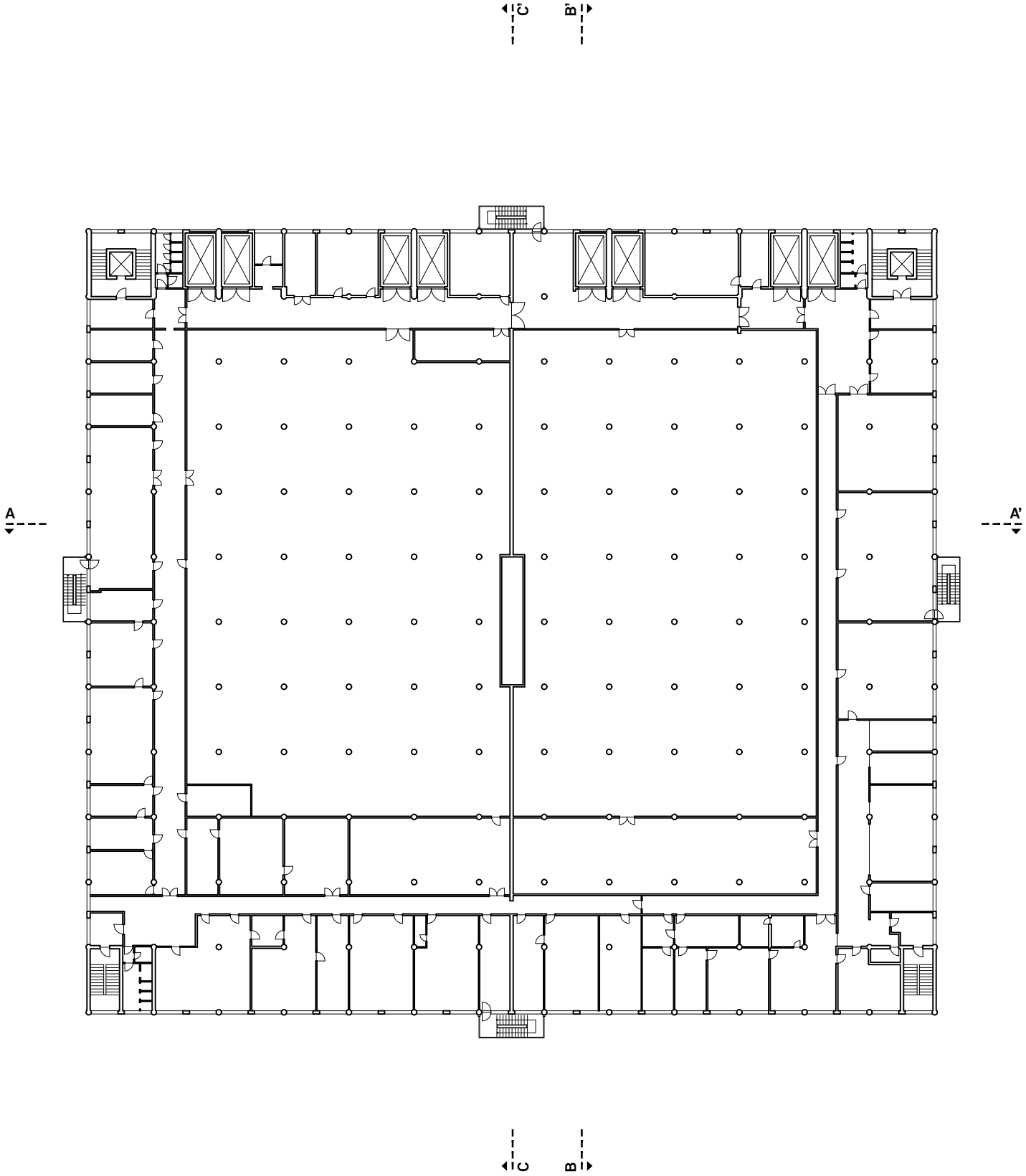

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FLOORPLAN 10F – ORIGINAL

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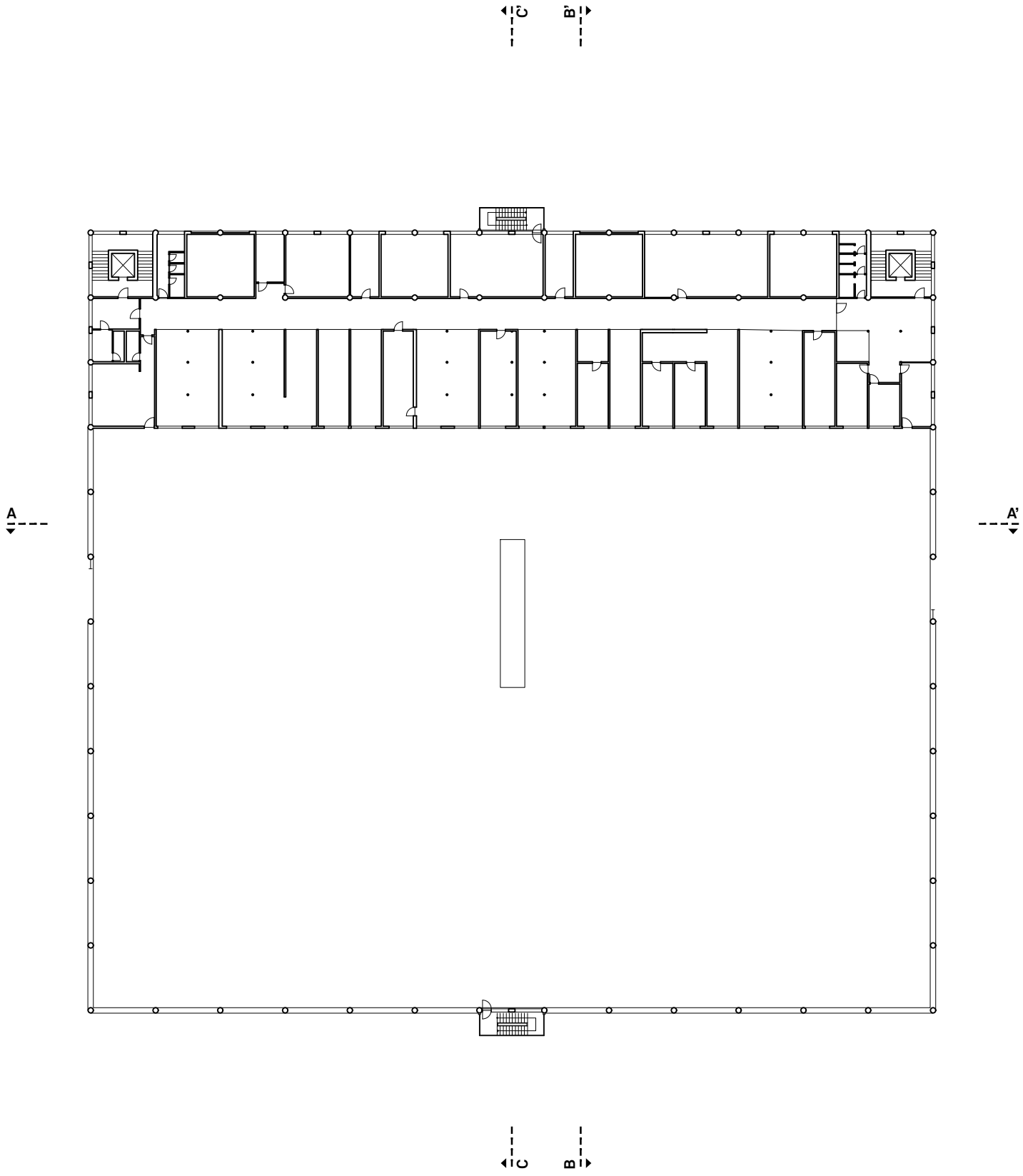

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FLOORPLAN 11F - ORIGINAL

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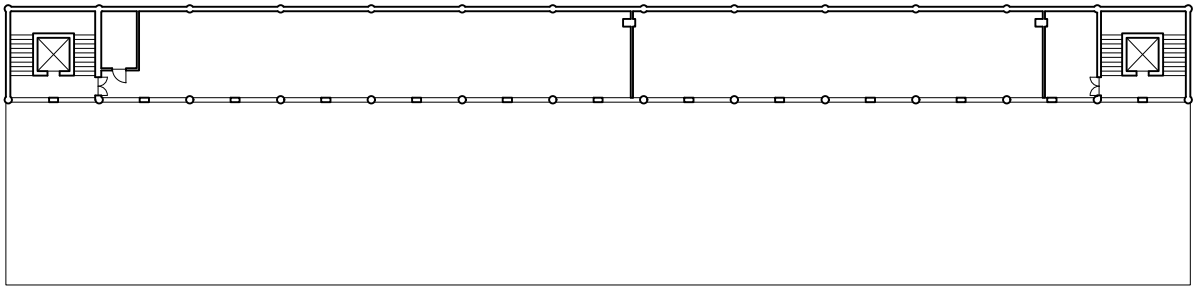
C'

B'



A

A'

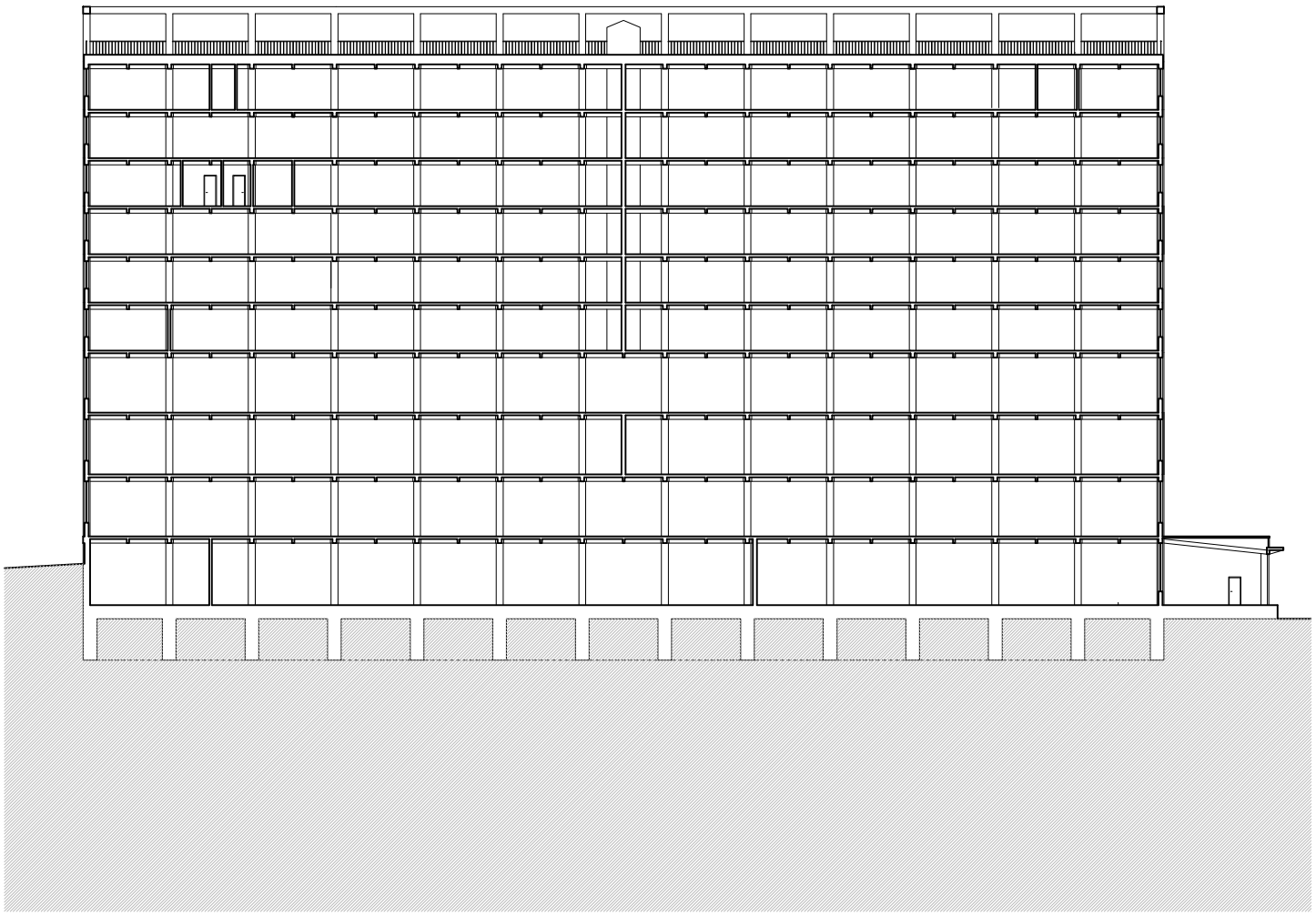
C

B

0 20m

SECTION AA' – ORIGINAL

1:500



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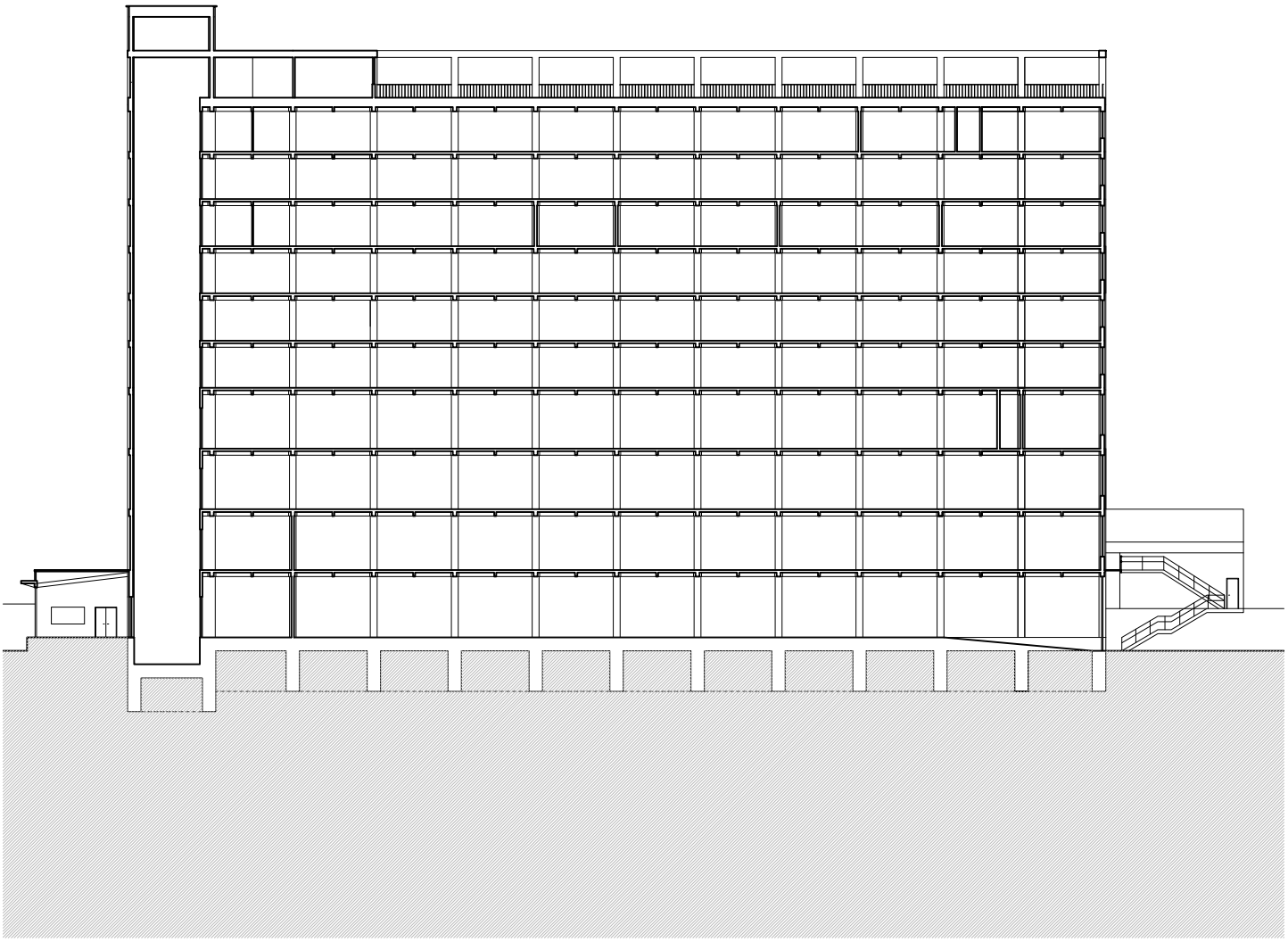
SECTION BB' – ORIGINAL

1:500



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SECTION CC' - ORIGINAL

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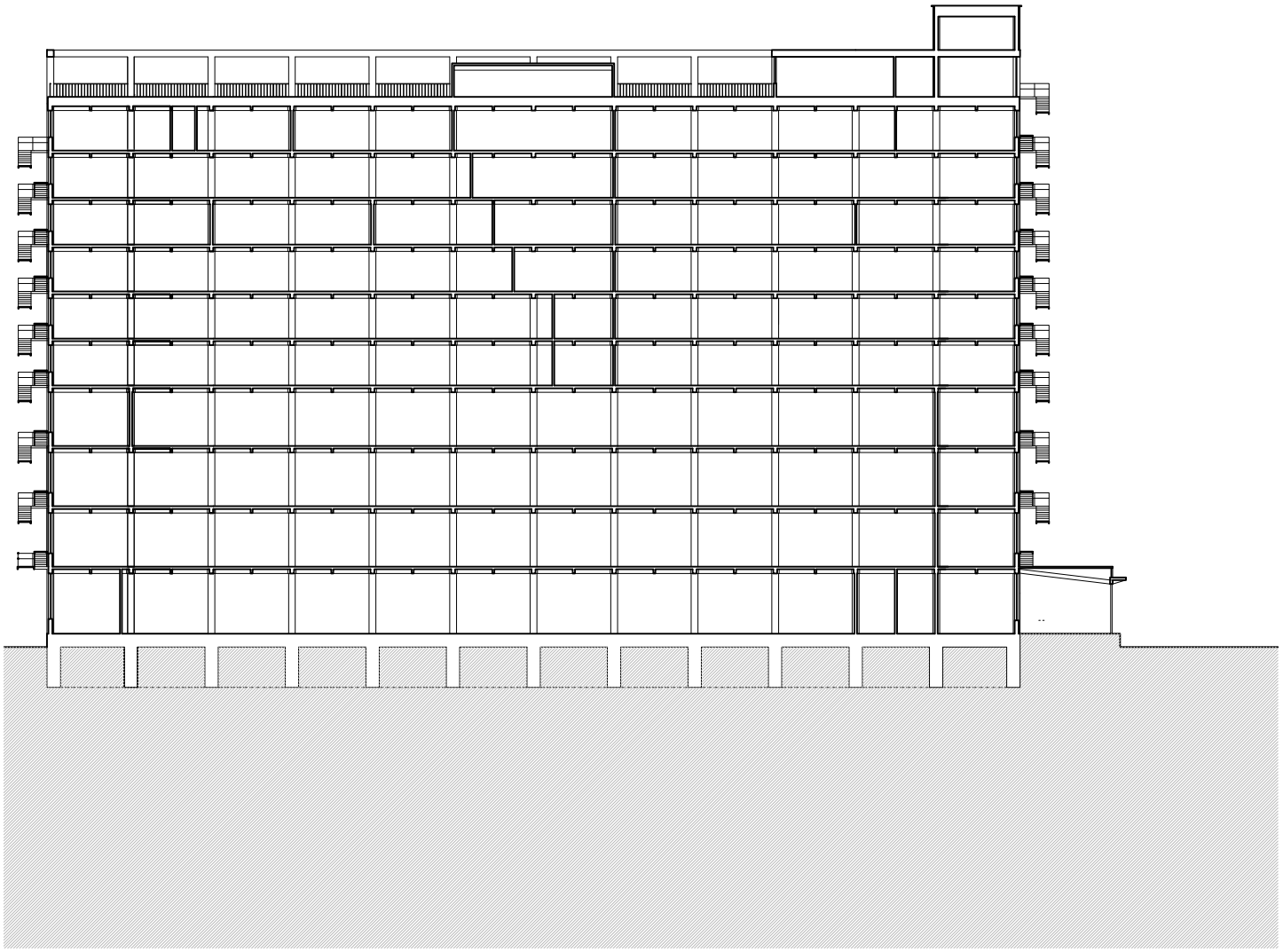

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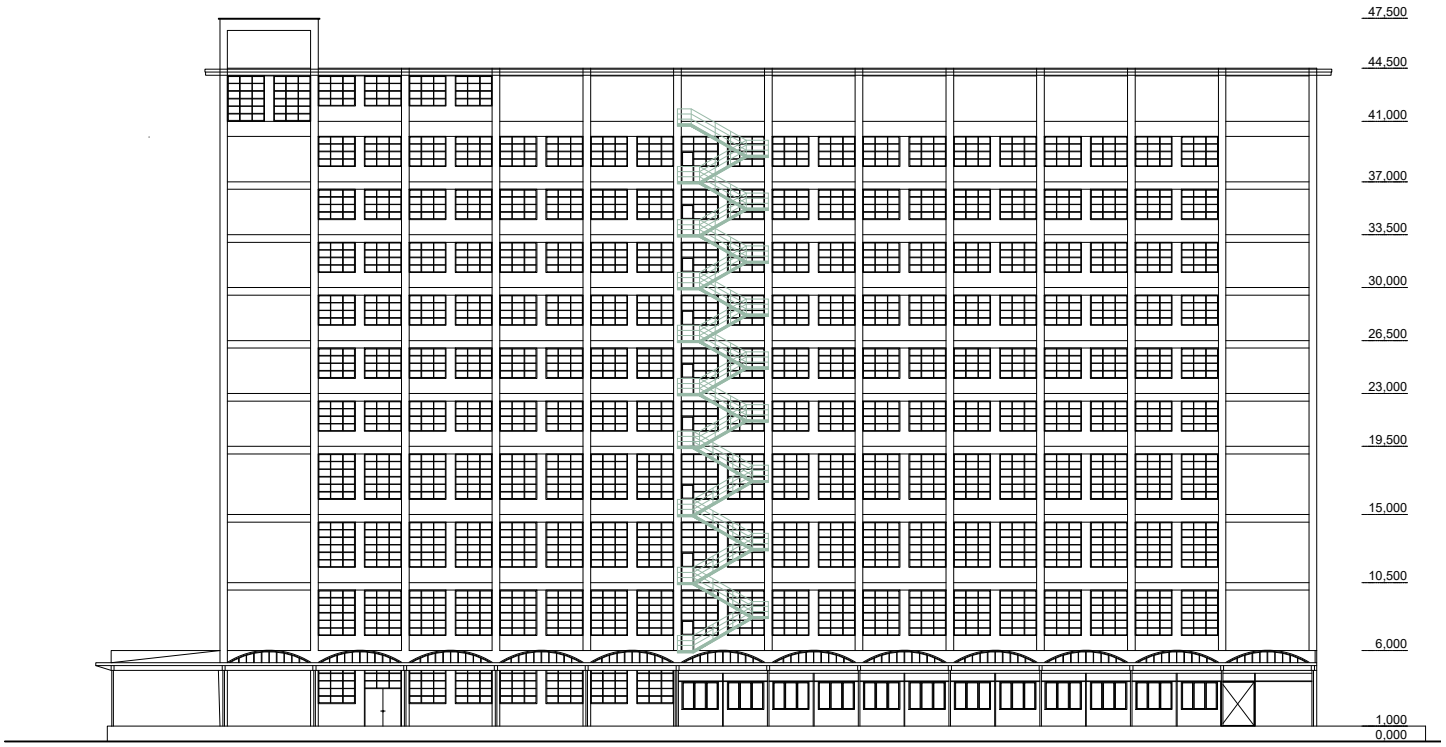
SECTION CC' - ORIGINAL

1:500

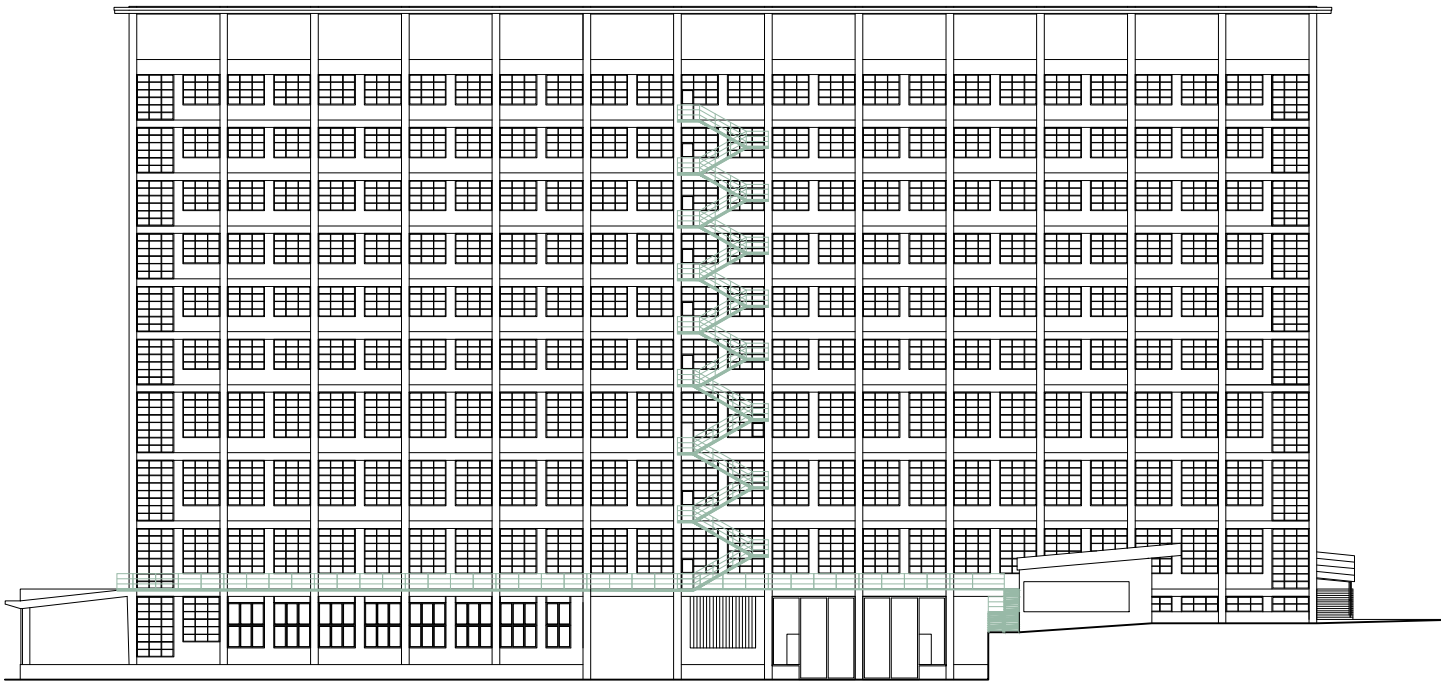
0 20m

ELEVATION NORTH - ORIGINAL

1:500



ELEVATION WEST - ORIGINAL



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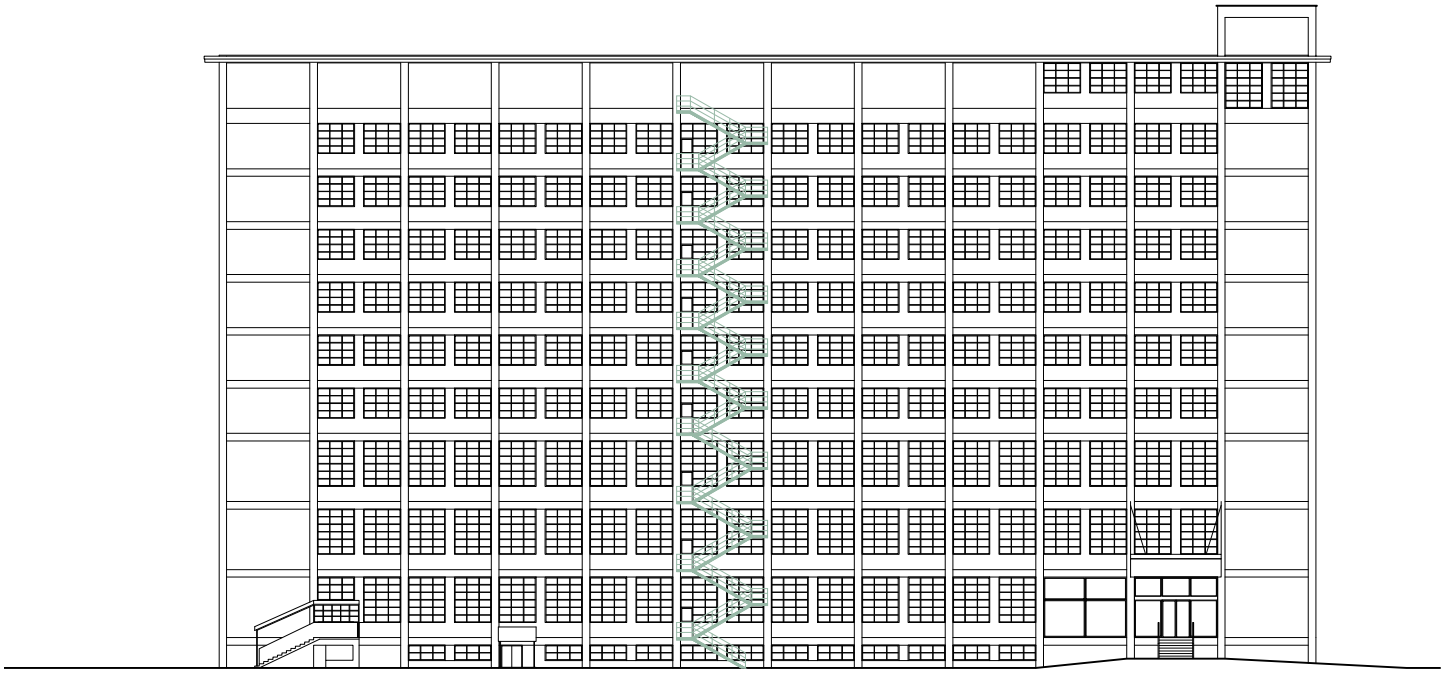
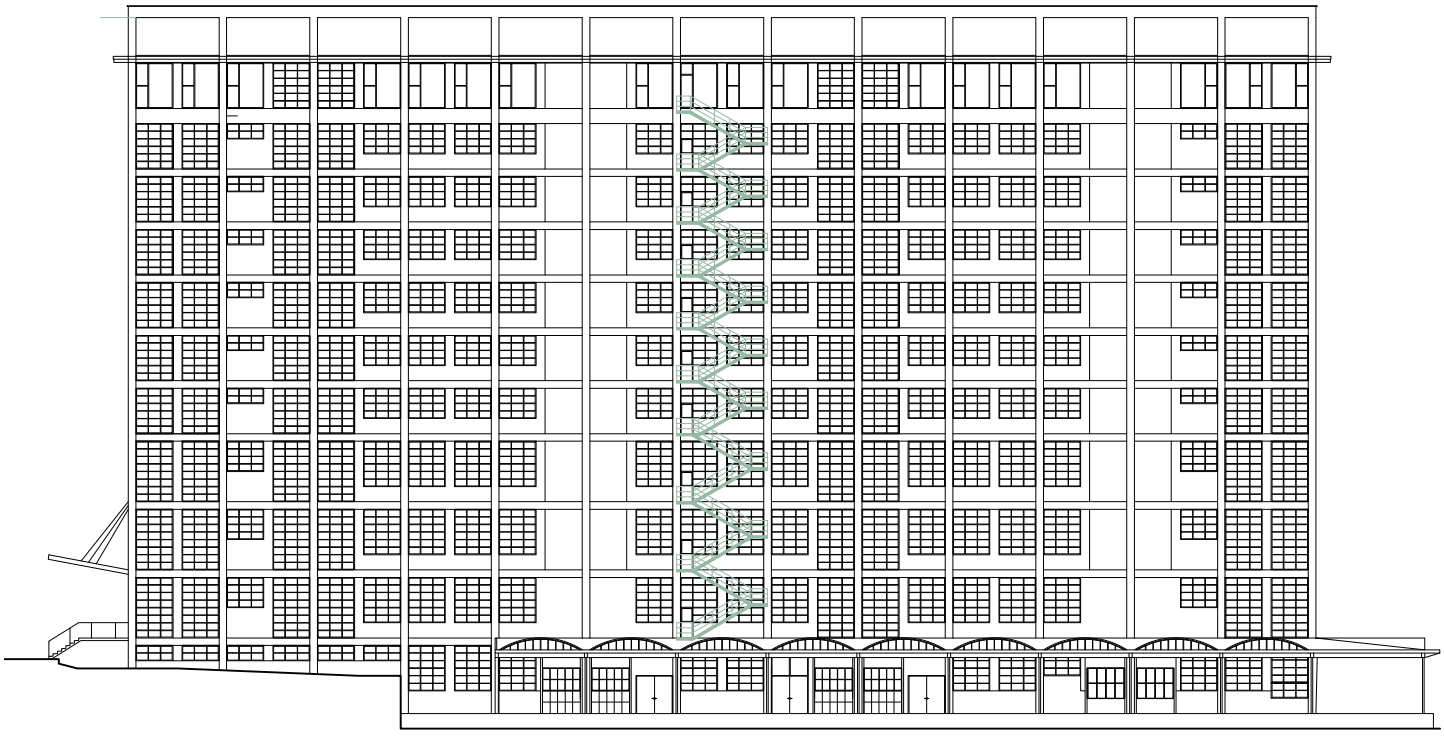
ELEVATION SOUTH - ORIGINAL

1:500



ELEVATION EAST - ORIGINAL



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PROPOSAL

The proposed design aims to respect the character of the building, while implementing various design elements that enhance it's utility towards an educational function. Due to Building 34 being located within a protected heritage site, it is crucial that it largely retains its original qualities. Therefore the proposal extensively retains the original facade, with only a few major changes to selected parts, such as the parterre, roof and an extension protruding from the northern facade. These changes are designed to be easily distinguishable from the building's original design, paying respect to both the old and the new.

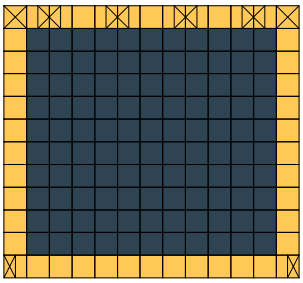
The interior of the building is treated boldly, to accommodate it for it's new function. An atrium is carved into the structure, allowing light to penetrate a an interior previously unreachable by daylight. Two large halls are fitted under the new atrium, holding a maximum of 534 guests. A rotunda containing a structure is placed centrally to act as the main vessel for foot traffic throughout the faculty, while a series of ramps are fitted onto the southern face of the atrium, to bridge two wings of the faculty otherwise blocked by the integration centre. The new floor plans utilise glass extensively to preserve the "open feel" of the structure. A massive concrete beam raster is fitted at the top of the atrium, which is subsequently topped off by a series of truncated pyramids that act as skylights. This design is then repeated in the outdoor basketball court in the public space adjacent to Building 34.

Both the roof of the building and the public space facing it contain a wood interpretation of the original structural module of the building, that creates long colonnades and shelters. Atop the roof, this shelter hosts concrete ping pong tables for the students' enjoyment, while the wooden structures in the public space below host or acts as a division for a variety of functions: cafe, basketball court, a square, an outdoor exhibition space and an amphitheatre.

Overall, the alterations and additions to Building 34 are heavily influenced by the existing structure, utilising its 6x6m grid often and interpreting its structural module.

After the repurposing of the building into a faculty, it would be able to hold around 570 students and 270 employees, while the Integration Center could be home to 12 start-ups or firms.

SEARCH FOR ATRIUM SHAPE



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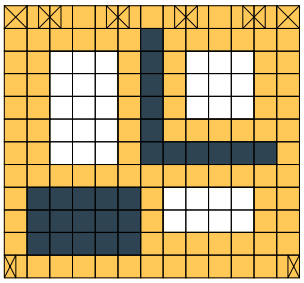

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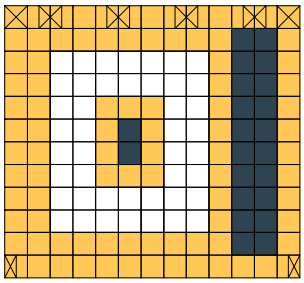

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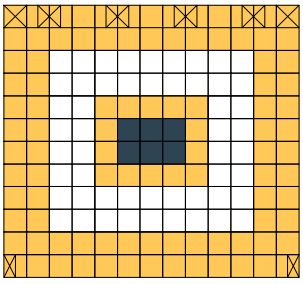

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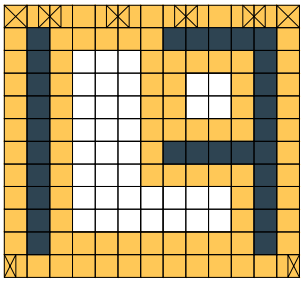

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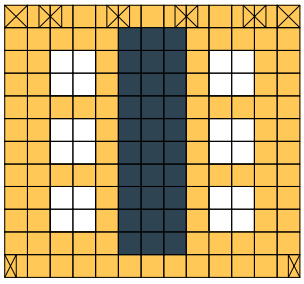

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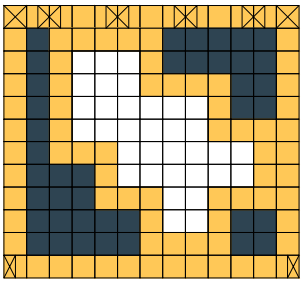

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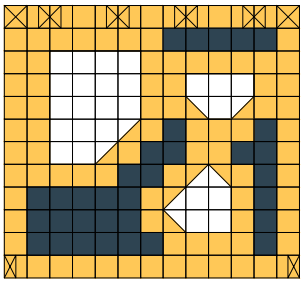

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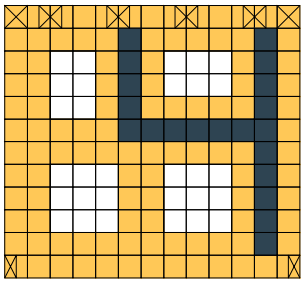

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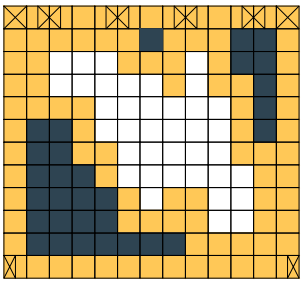

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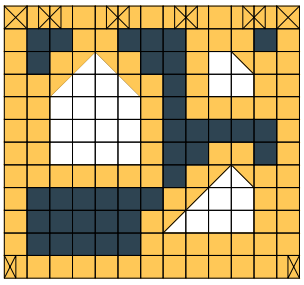

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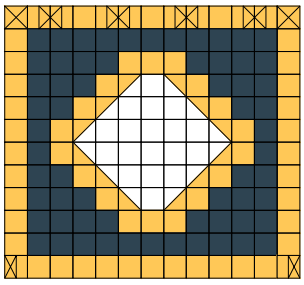
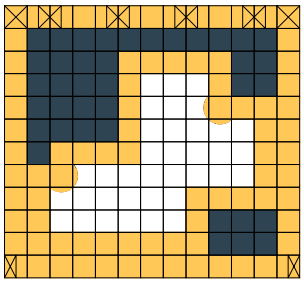


11

Daylight does not reach Daylight reaches



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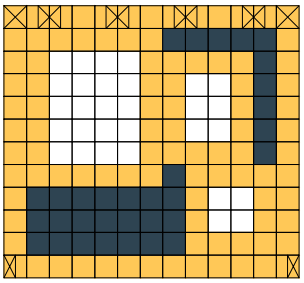

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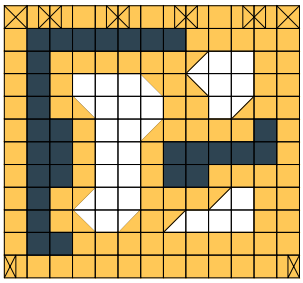

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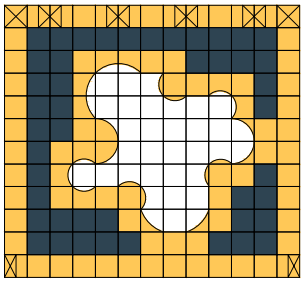

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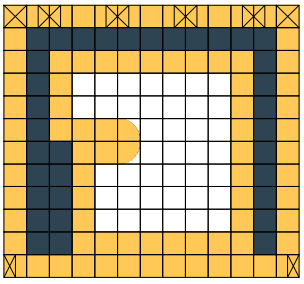

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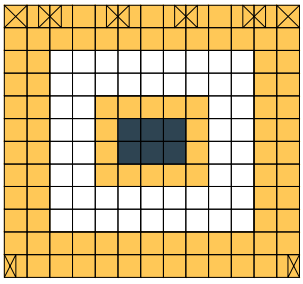

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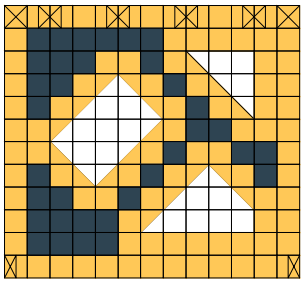

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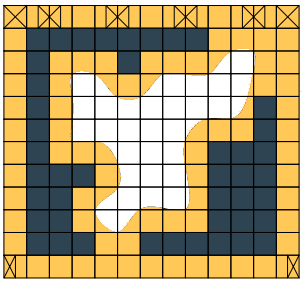

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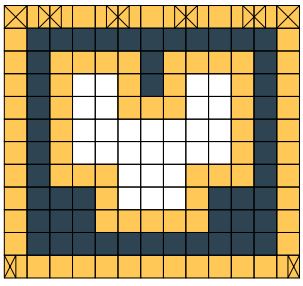

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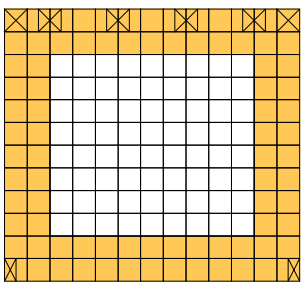

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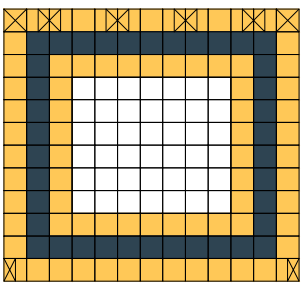

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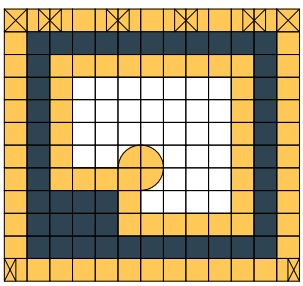
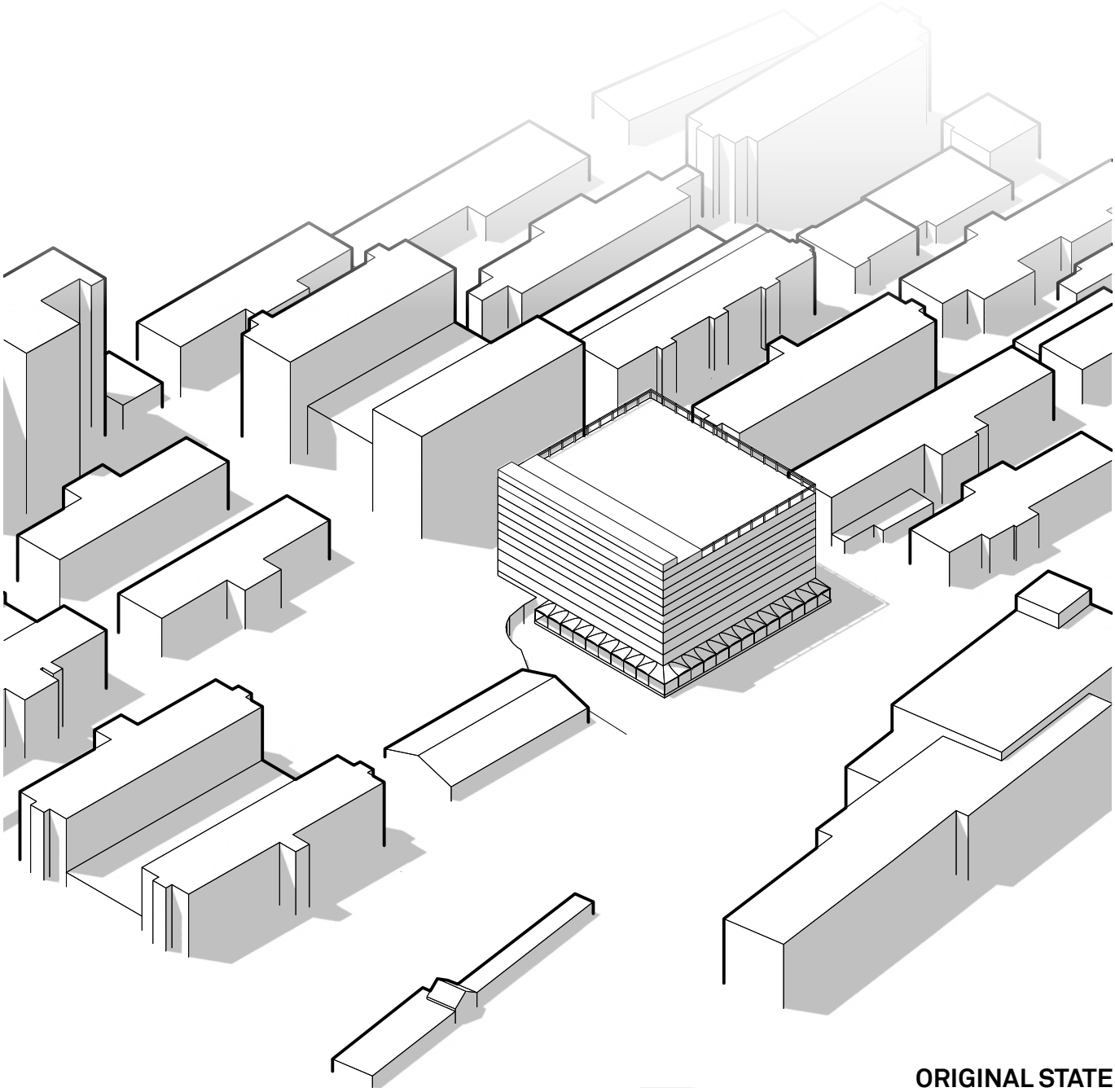


Selected variant

DESIGN PROCESS

Building 34 in its current state stands on a footprint of 72 x 78 m, making it an ideal structure for storage functions. Storage spaces do not require much if any natural light, which this structure takes full advantage of, as natural light only reaches about two modules deep. Therefore all of the office spaces this building currently hosts are placed along its perimeter, with the remaining interior spaces being used for storage.

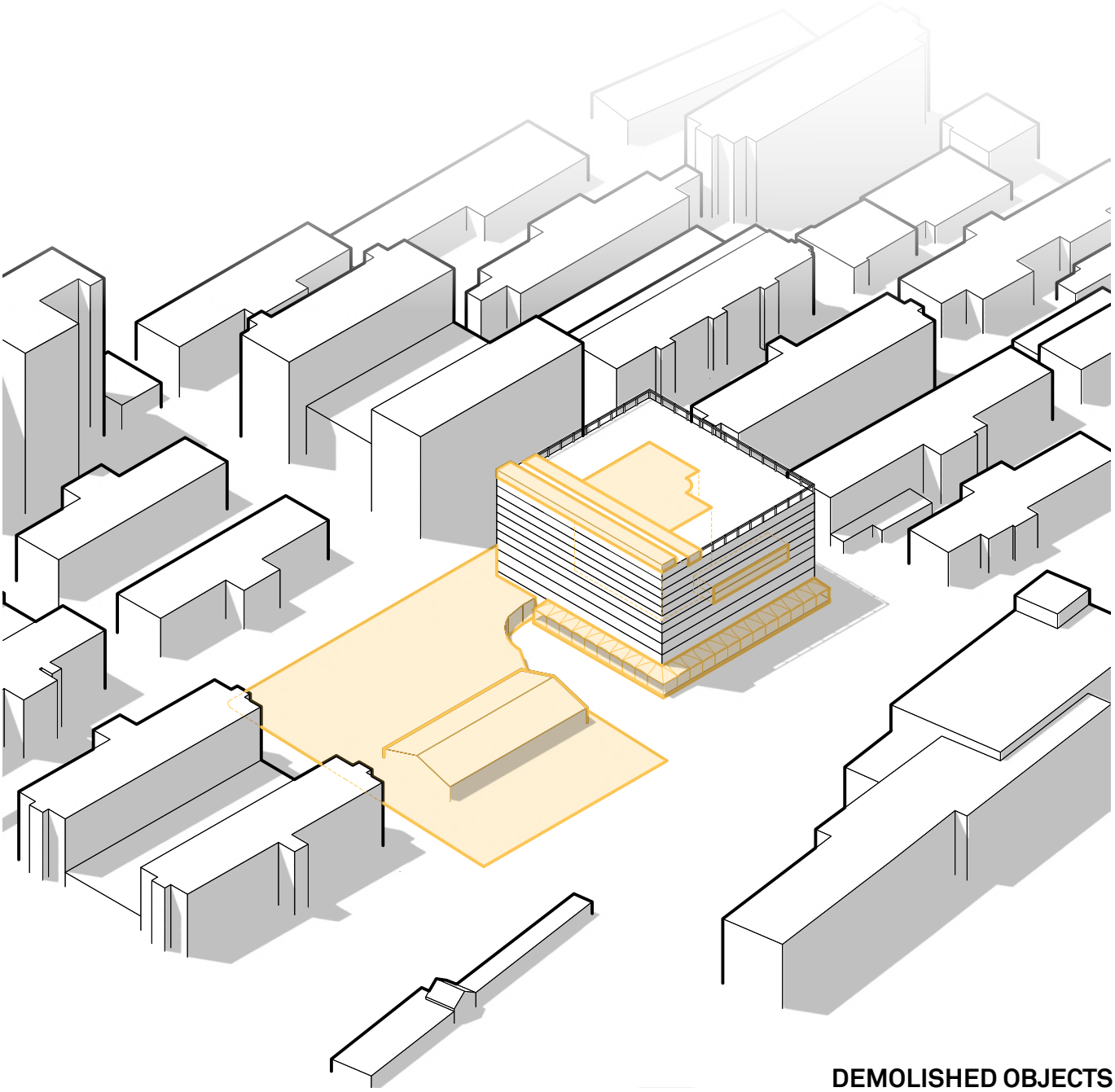
The vacant lot adjacent to building 34, where buildings 24 and 25 once stood, is currently being used as a makeshift parking. A temporary hockey hall has also been placed here. Overall this lot is being used inappropriately.



ORIGINAL STATE

Educational purposes require a much greater amount of natural light to be present in the building, therefore an atrium is created. Offices and lecture rooms can now be placed not only along the building's perimeter, but also along the atrium.

The loading dock and adjacent lot will be demolished to make way for a public space appropriate for not only the new faculty, but also for Svit's transition from industrial complex to vibrant city quarter.



DEMOLISHED OBJECTS

DESIGN PROCESS

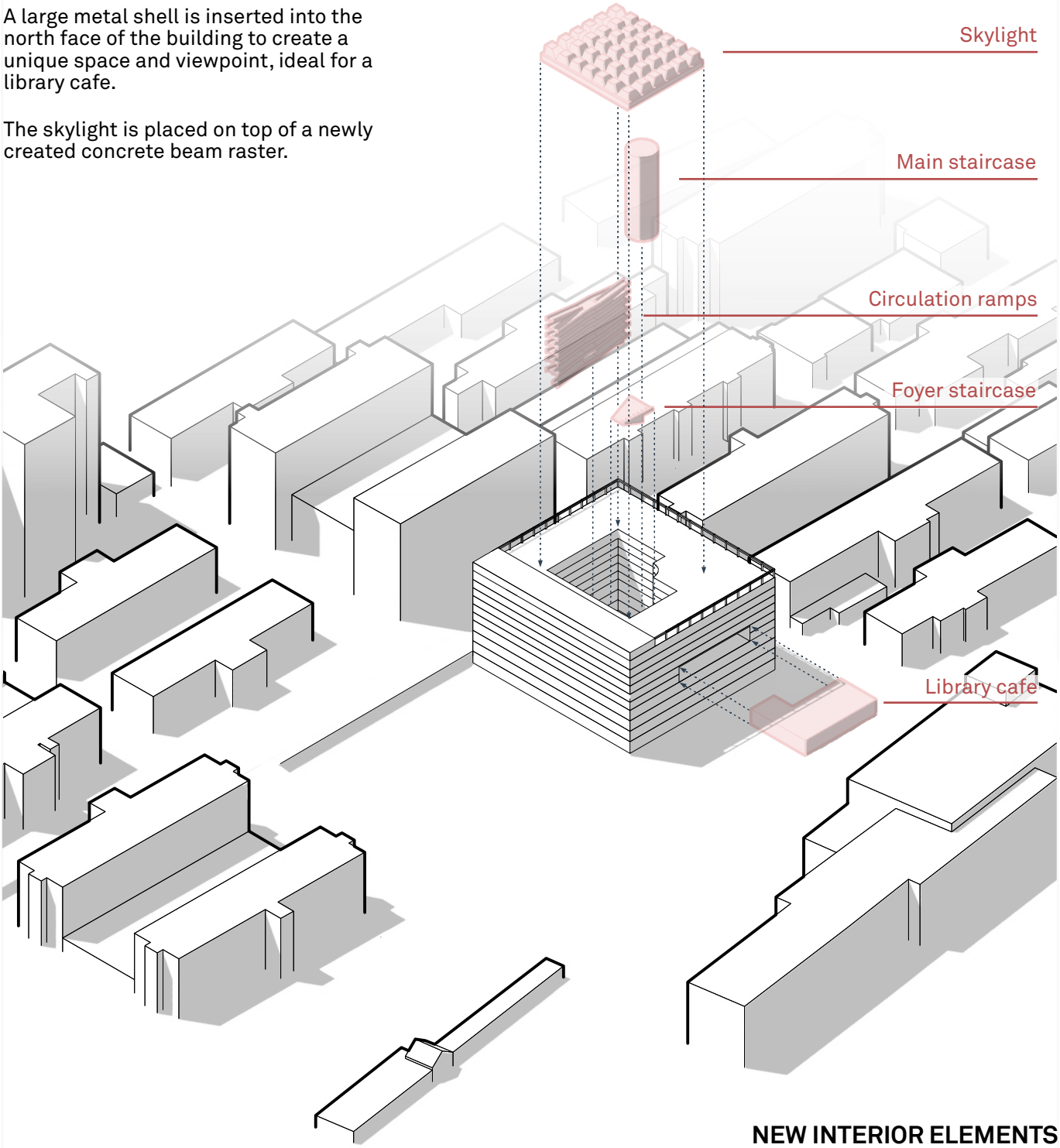
The building is fitted with new design elements to support the function of a university.

New large spiral staircase is added centrally as the main node of circulation throughout the building, along with large ramps on the south edge of the atrium that further enhance circulation.

A grand staircase is added to bridge the lecture halls on the ground floor, and the atrium floor a level above.

A large metal shell is inserted into the north face of the building to create a unique space and viewpoint, ideal for a library cafe.

The skylight is placed on top of a newly created concrete beam raster.



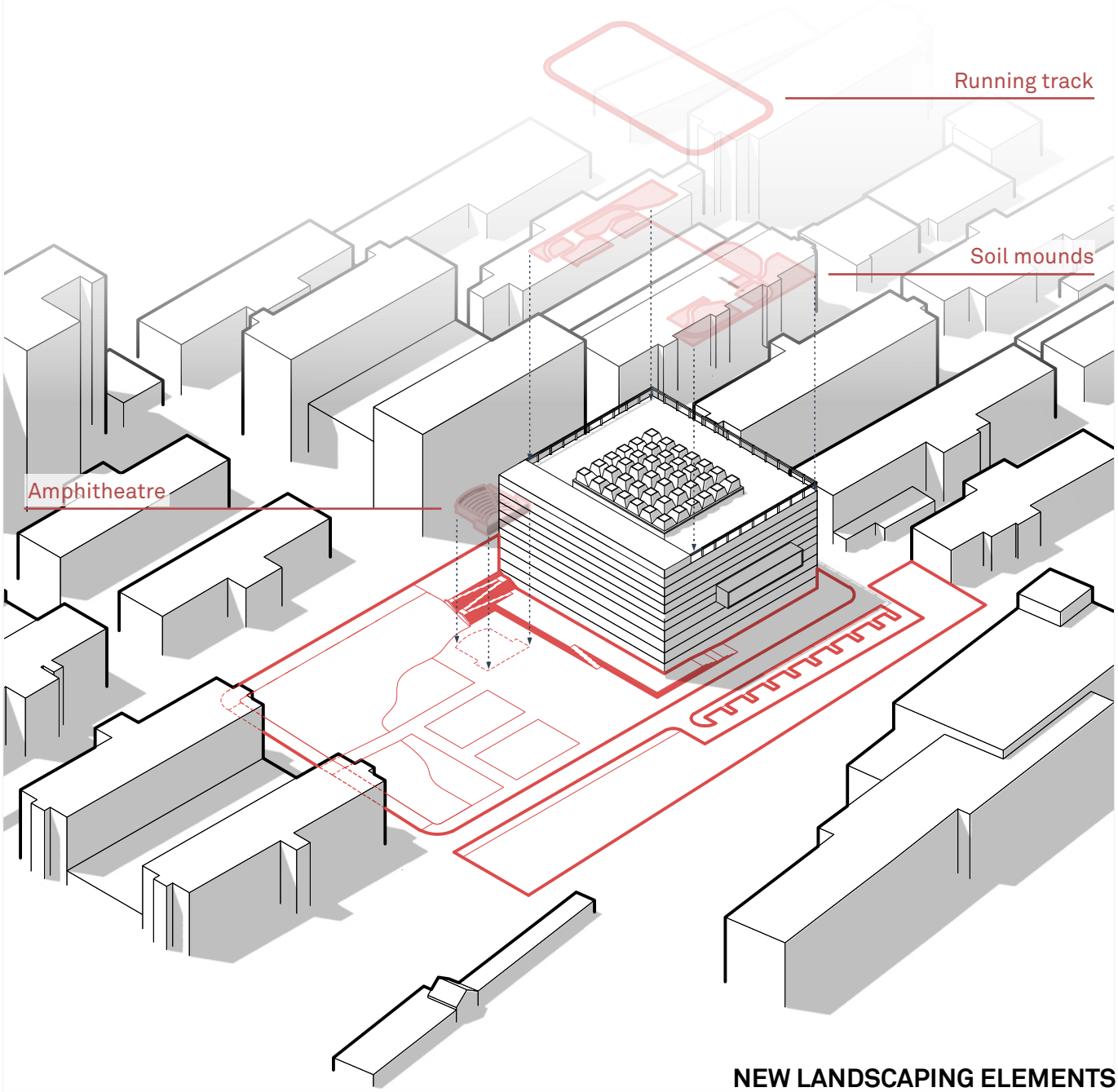
NEW INTERIOR ELEMENTS

The faculty receives a new concrete platform, framing and anchoring it within the urban block as a point of significance.

An amphitheatre is placed near-by the building, allowing for outdoor lectures/ performances/concerts.

The roof is landscaped with large soil mounds designated for planting trees above structural columns directly below.

A 200m running track circles around the skylight, giving the roof a sport function.

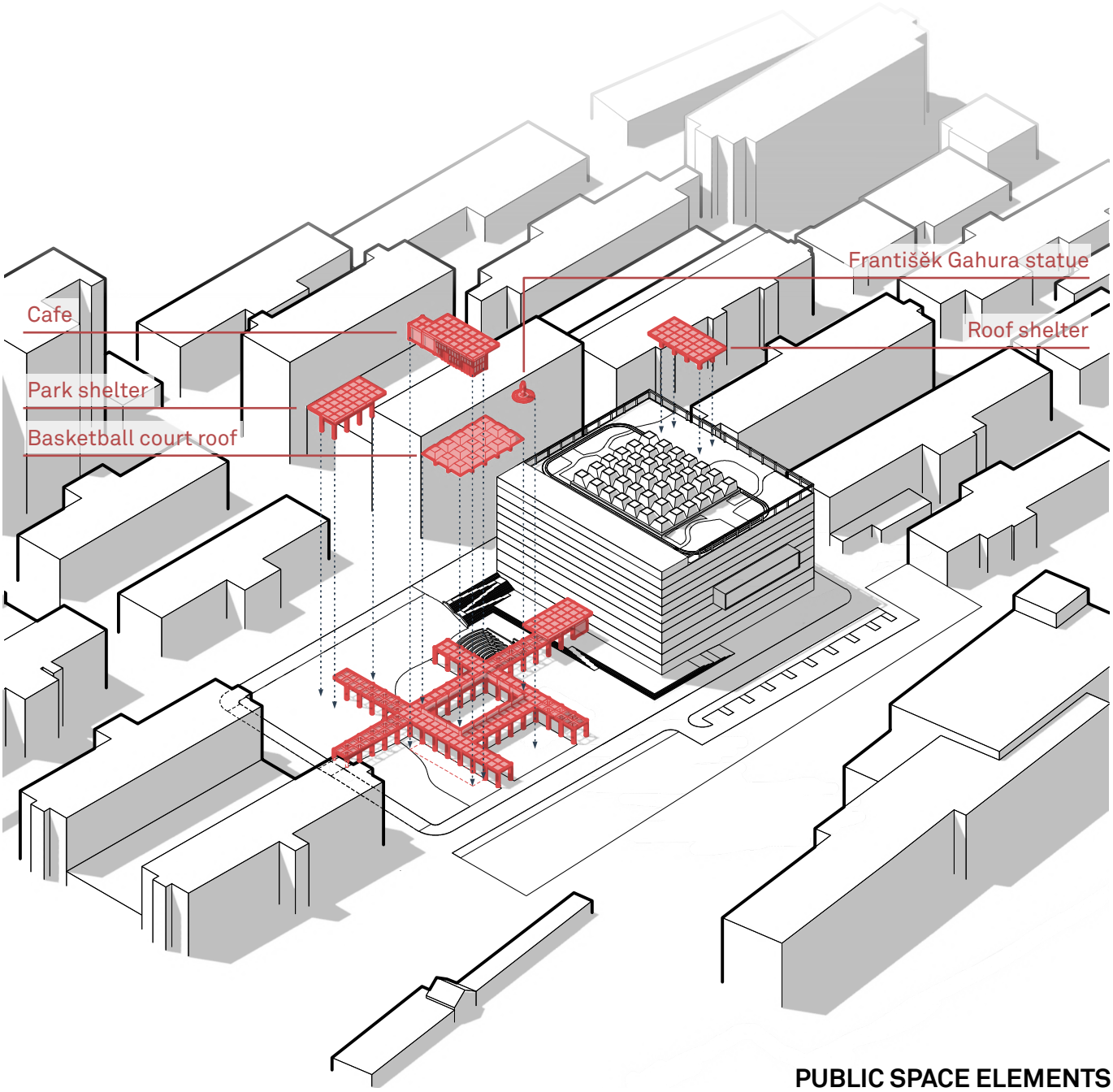


NEW LANDSCAPING ELEMENTS

DESIGN PROCESS

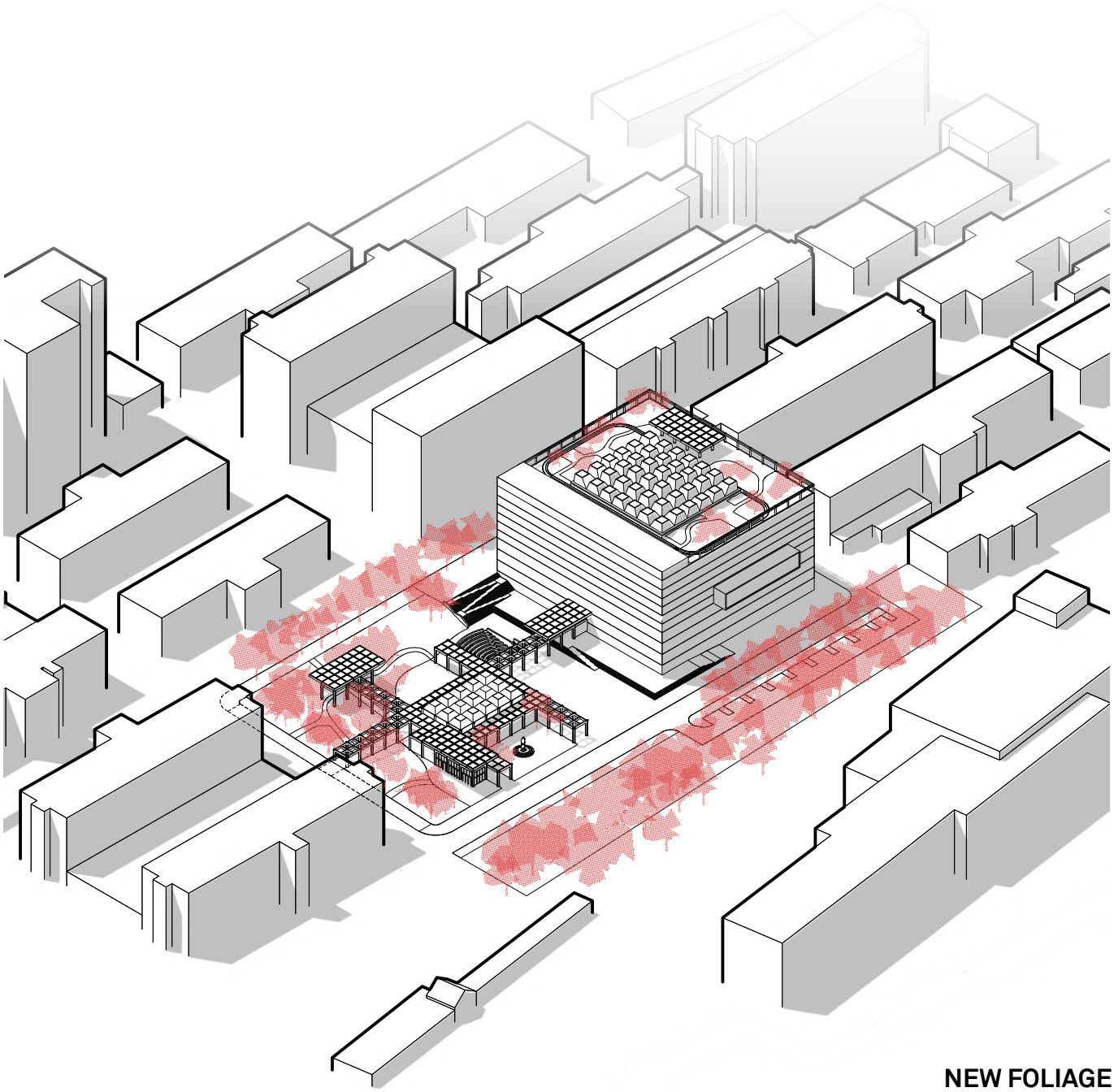
Wooden structures that interpret the structural module of the building "bleed" out into the adjacent lot, creating a multi-functional public space that includes a cafe, a basketball court, a small park and a square in the honour of František Lydie Gahura, Zlín's legendary functionalist architect responsible for the urban planning of the city as well as large amount of it's most iconic buildings.

The roof also receives one of these wooden structures to create a sheltered space for a table tennis and relax zones.



PUBLIC SPACE ELEMENTS

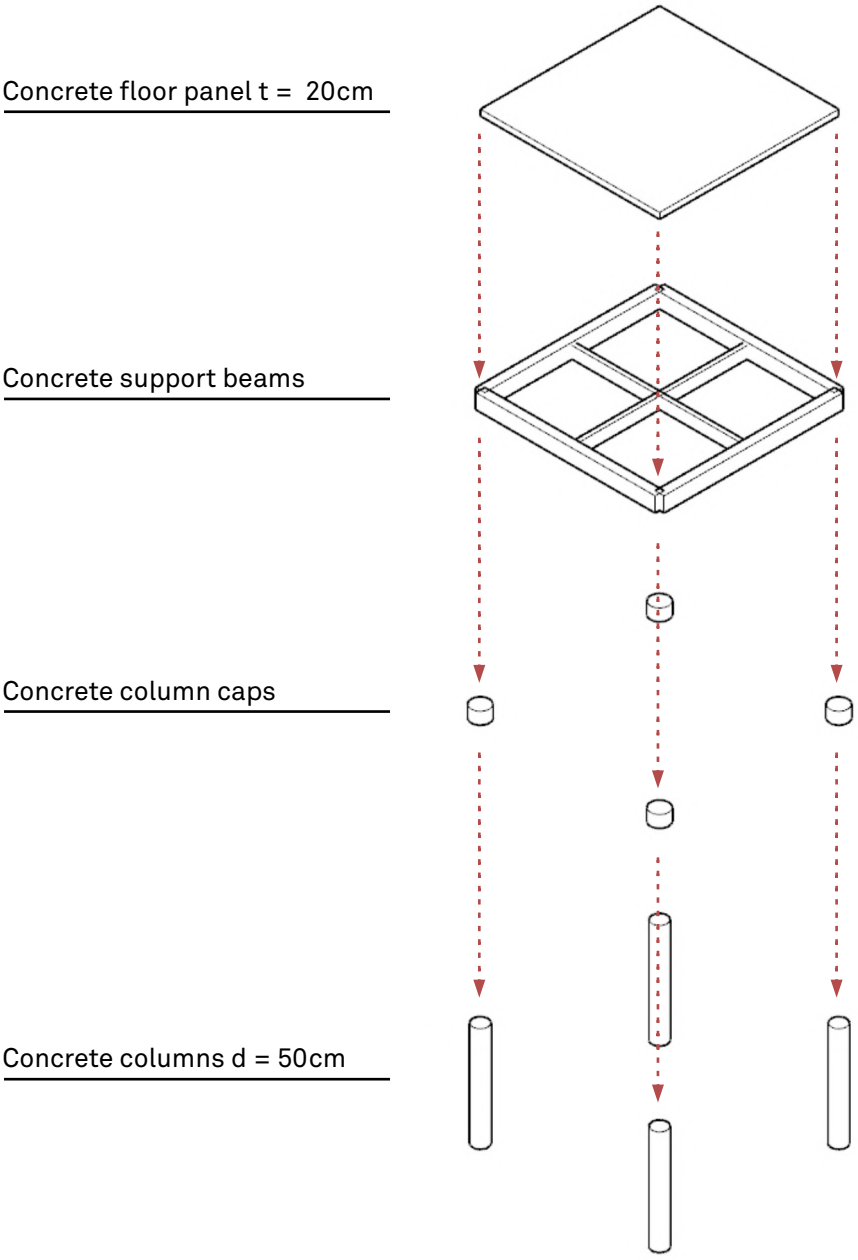
The roof, the park and the František Lydie Gahura square are all dotted with trees, that bring some much needed life into this corner of the city.



NEW FOLIAGE

STRUCTURE MODULES

Building 34 structure module



Building 34's skeleton was built on 6x6m concrete module system which allowed for efficient construction and an open floor plan ideal for its storage purposes.

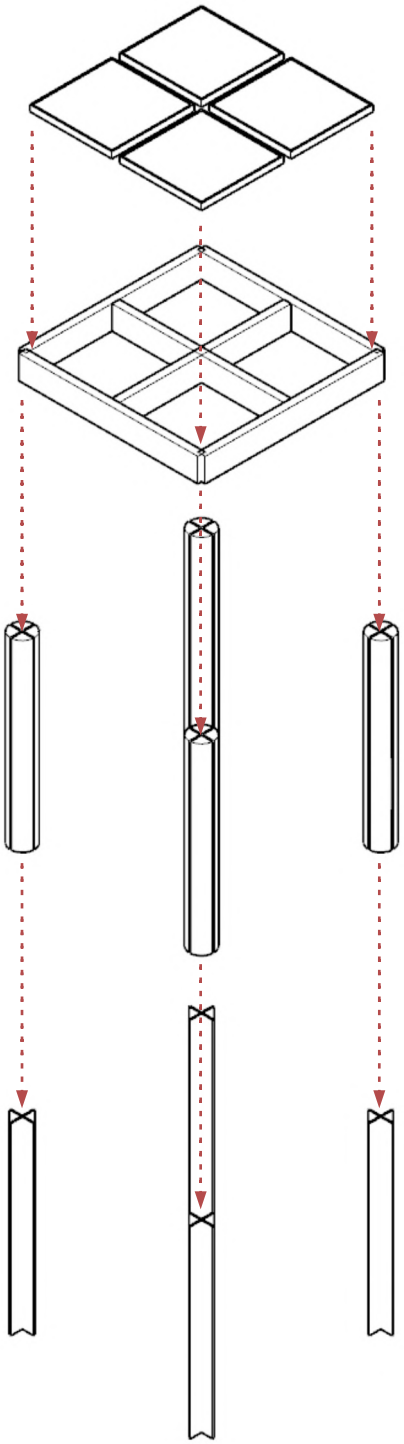
New public space wooden structure module

Variable infills

Timber support beams

Wooden column infills r = 80cm

Steel column core



The proposed wooden colonnade in the adjacent public space interprets this module system.

ATRIUM ROOF COMPOSITION

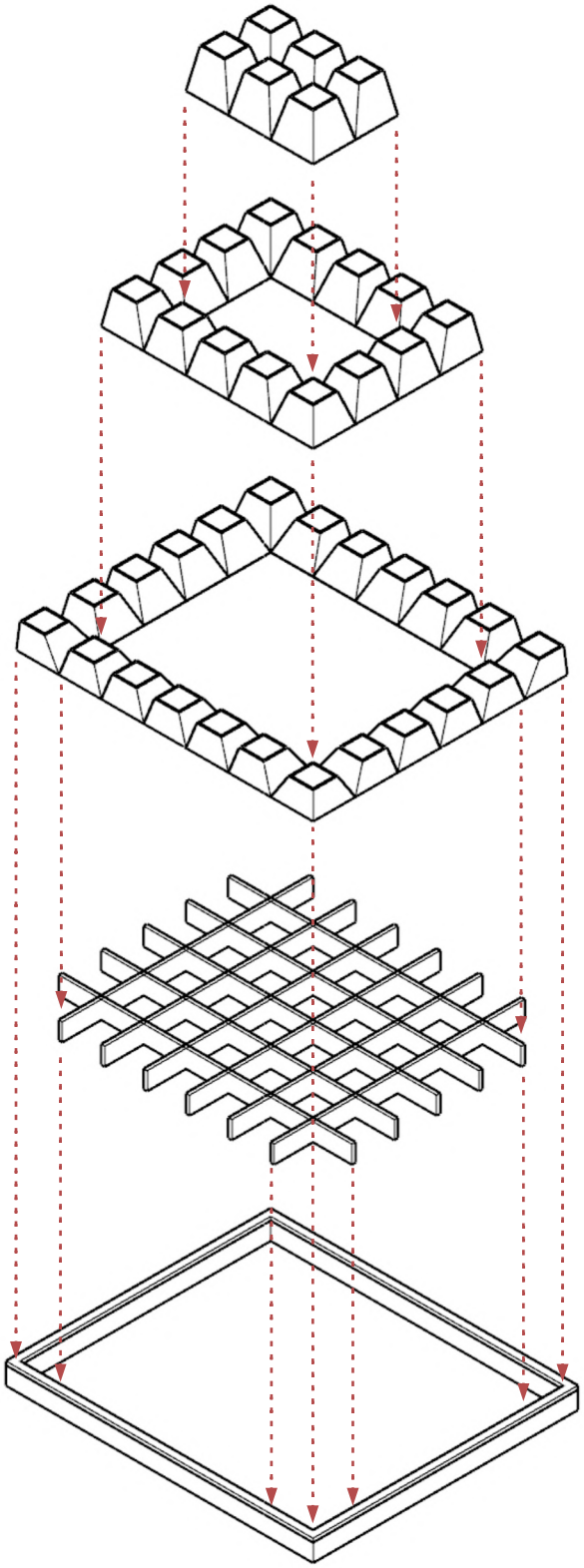
Skylight truncated pyramids
h = 5.5 m

Skylight truncated pyramids
h = 4.5 m

Skylight truncated pyramids
h = 3.5 m

Concrete beam raster 6x6m

Concrete frame



OUTDOOR BASKETBALL COURT COMPOSITION

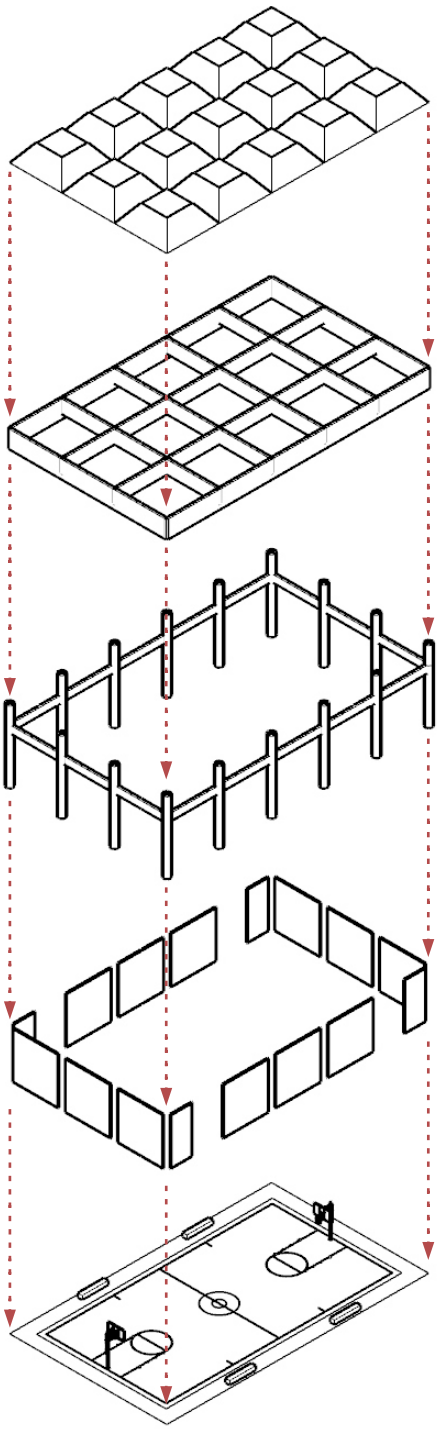
Skylight truncated pyramids
h = 2 m

Wooden beam raster 6 x 6m

Column and beam perimeter

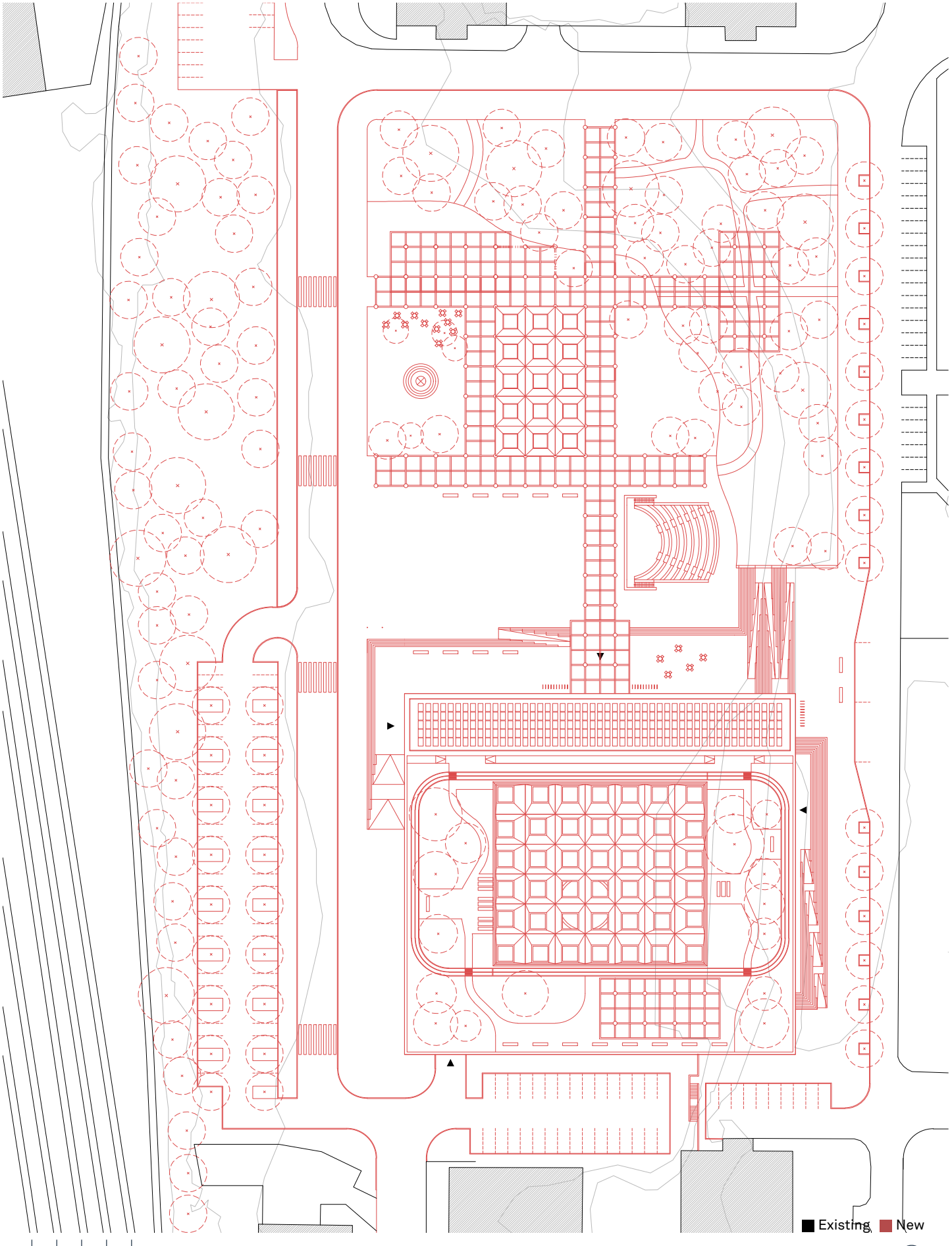
Netting

Basketball court



SITUATION - NEW

1:1000

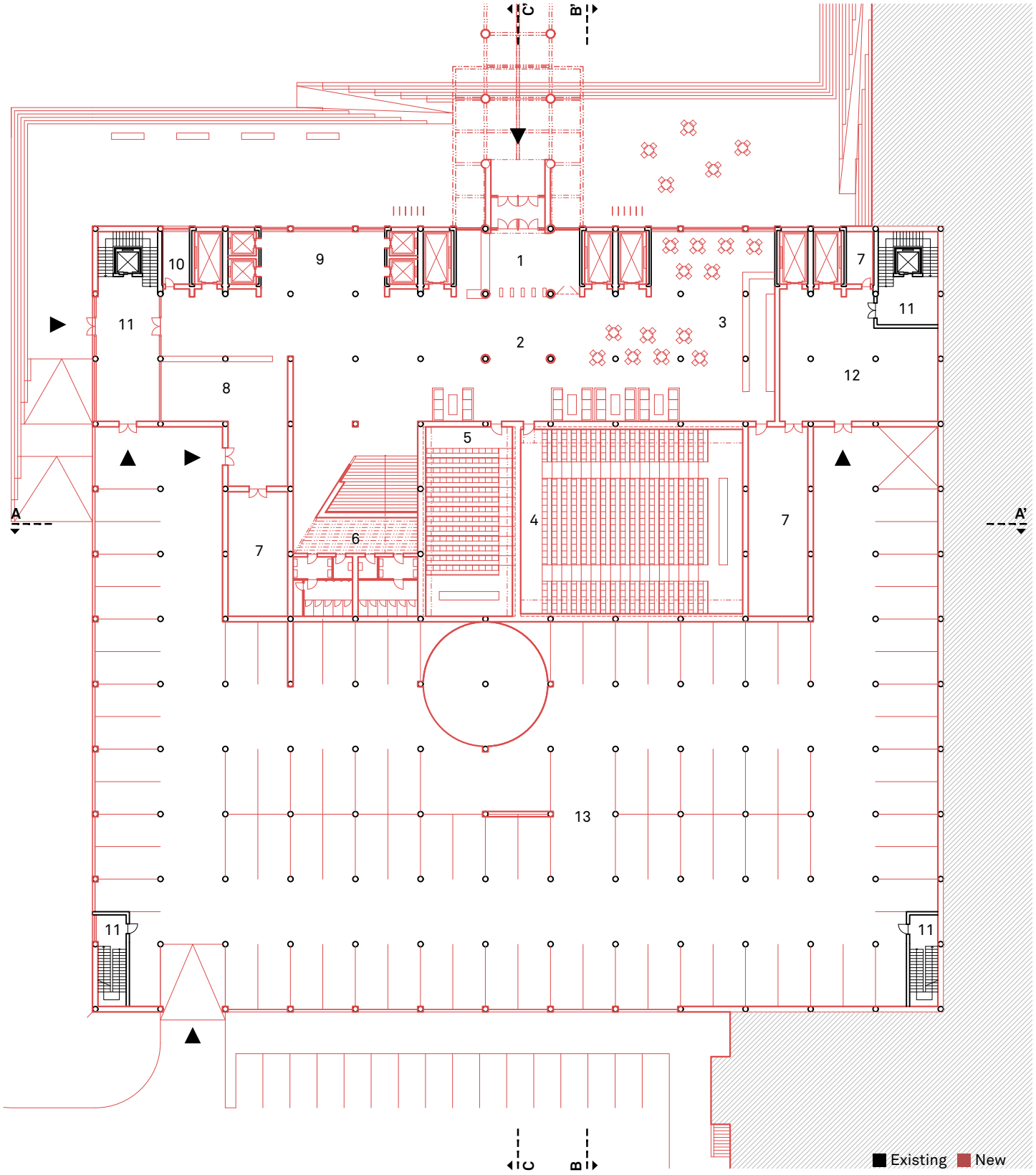


SCHWARZPLAN - NEW

1:2500

FLOORPLAN GF - NEW

1:500

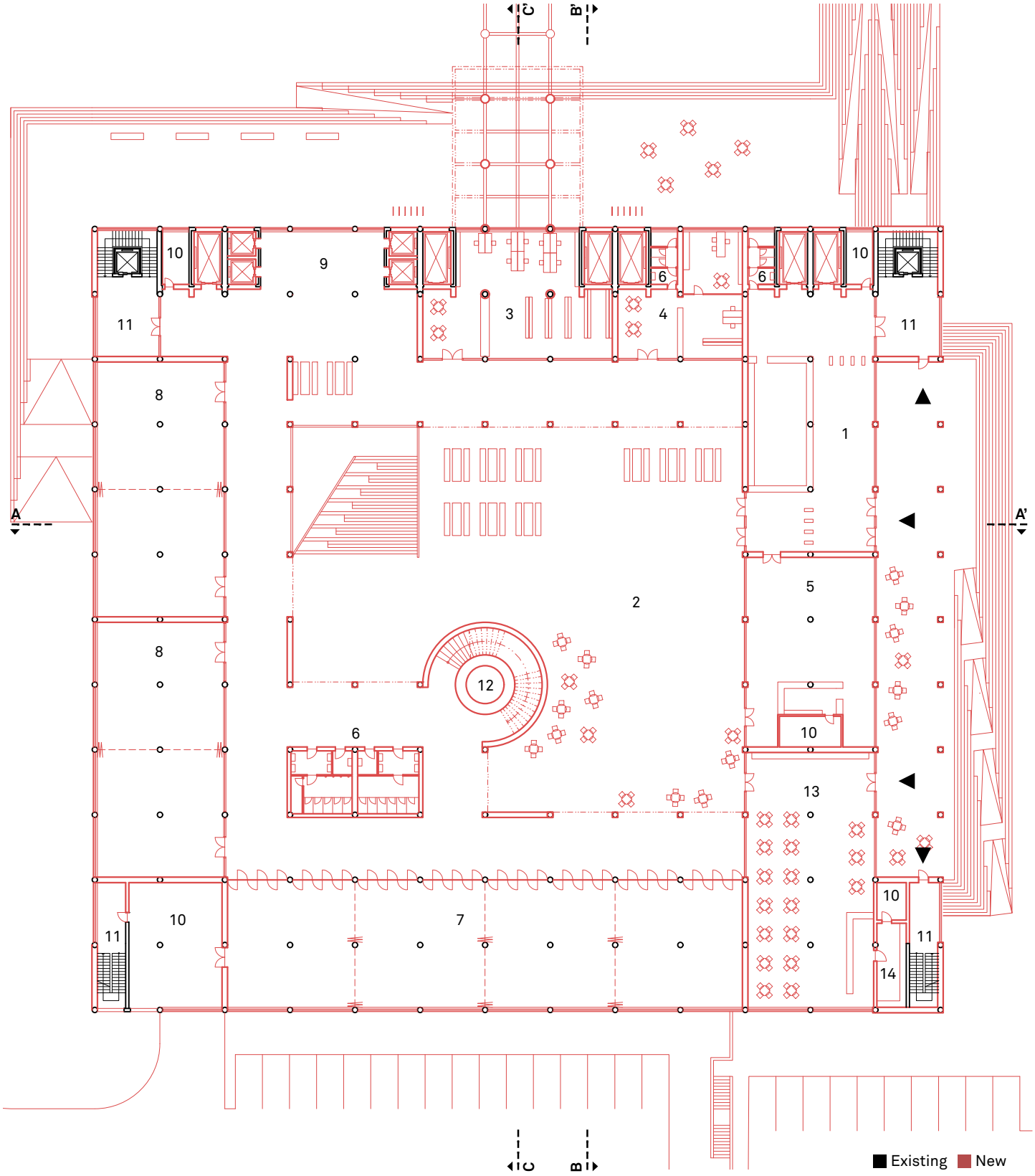


1	Entrance / reception	8	Cloak storage
2	Foyer	9	Main elevators
3	Catering	10	Storage
4	Large hall (391)	11	Emergency escape
5	Small hall (143)	12	Integration Center (IC) / basement
6	Toilets	13	Parking garage
7	Technical Room		

0 20m

FLOORPLAN 1F - NEW

1:500

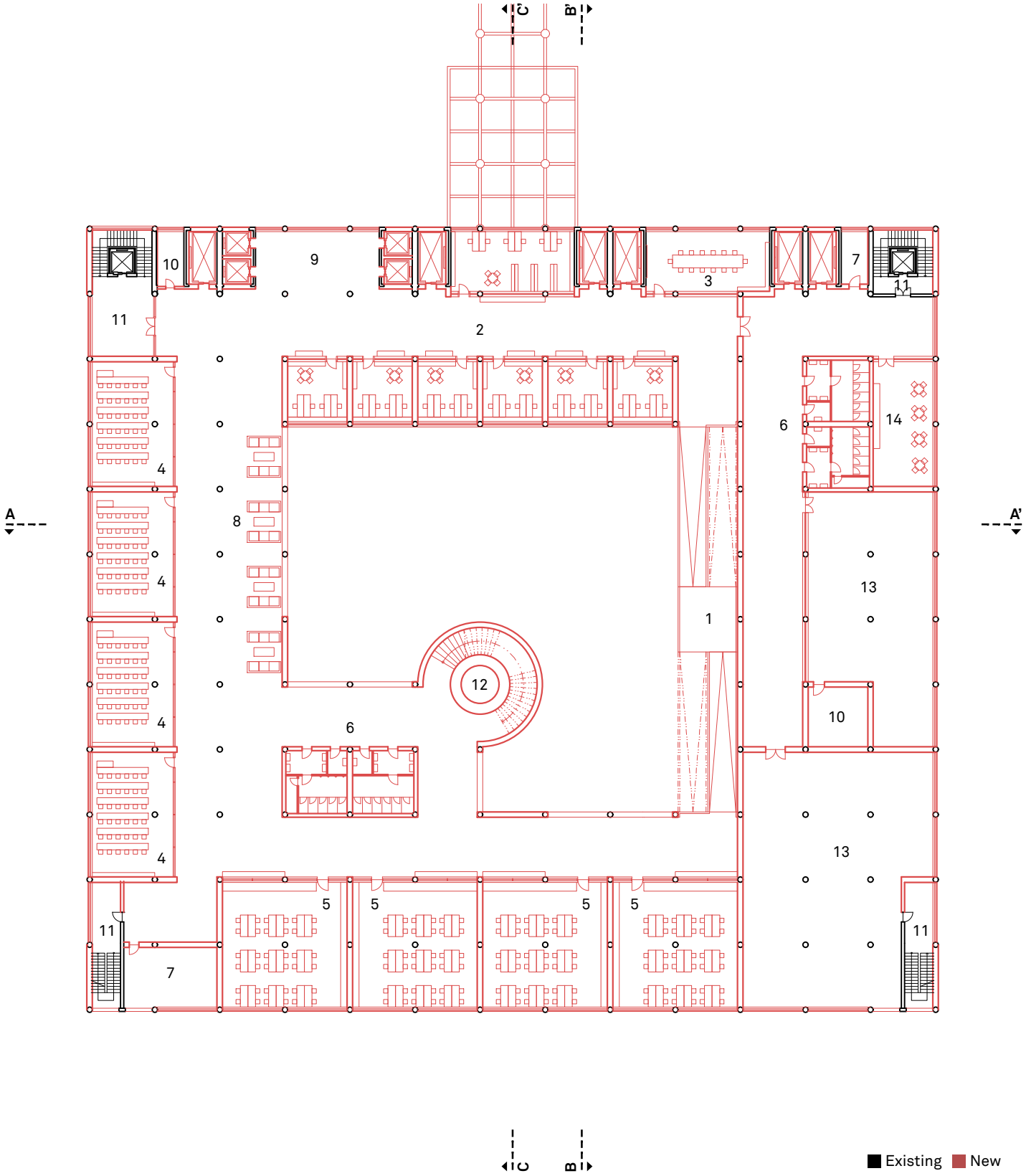


1	Entrance / reception	8	Activity / lecture room
2	Atrium floor	9	Main elevators
3	Student advisory office	10	Storage
4	Dean's office	11	Emergency escape
5	Print and stationary store	12	Main staircase
6	Toilets	13	Bistro / cafe
7	Main exhibition space	14	Kitchen

0 20m

FLOORPLAN 2F - NEW

1:500



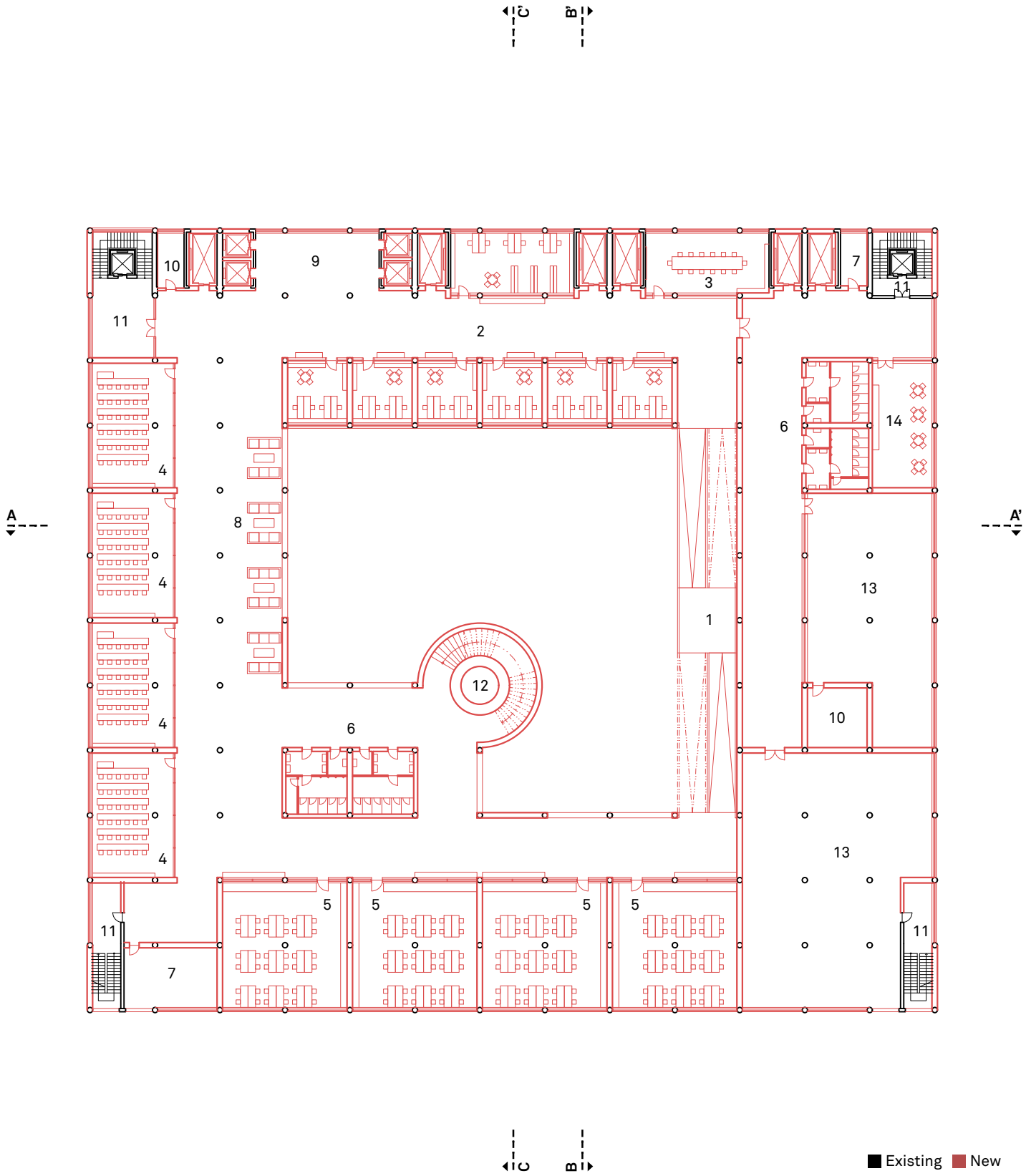
Existing New

1	Atrium ramps	8	Seating space
2	Offices	9	Main elevators
3	Meeting room	10	Storage
4	Lecture room	11	Emergency escape
5	Studio space	12	Main staircase
6	Toilets	13	IC Rentable space
7	Technical Room	14	Kitchen

0 20m

FLOORPLAN 3F - NEW

1:500



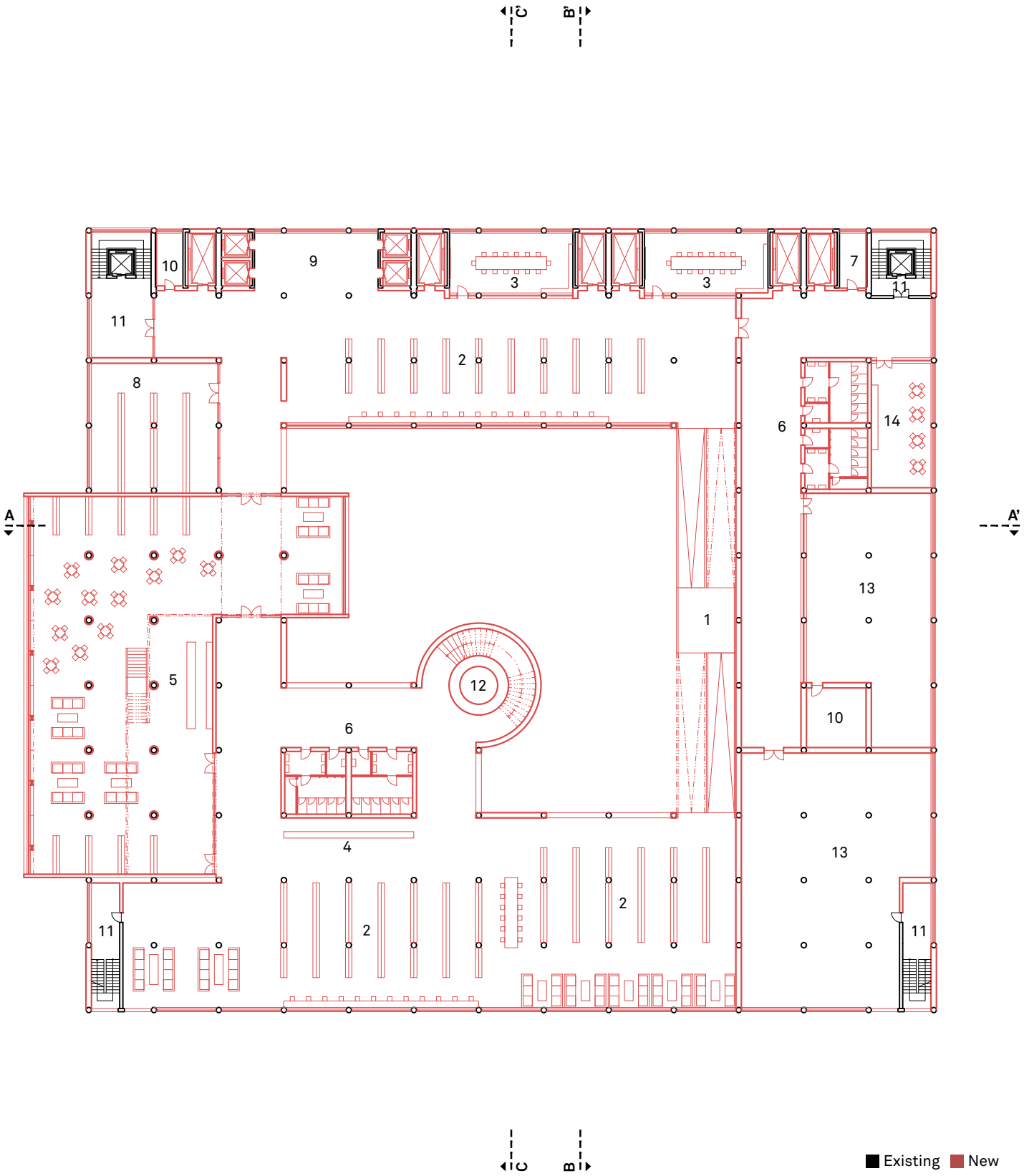
Existing New

1	Atrium ramps	8	Seating space
2	Offices	9	Main elevators
3	Meeting room	10	Storage
4	Lecture room	11	Emergency escape
5	Studio space	12	Main staircase
6	Toilets	13	IC Rentable space
7	Technical Room	14	Kitchen

0 20m

FLOORPLAN 4F - NEW

1:500



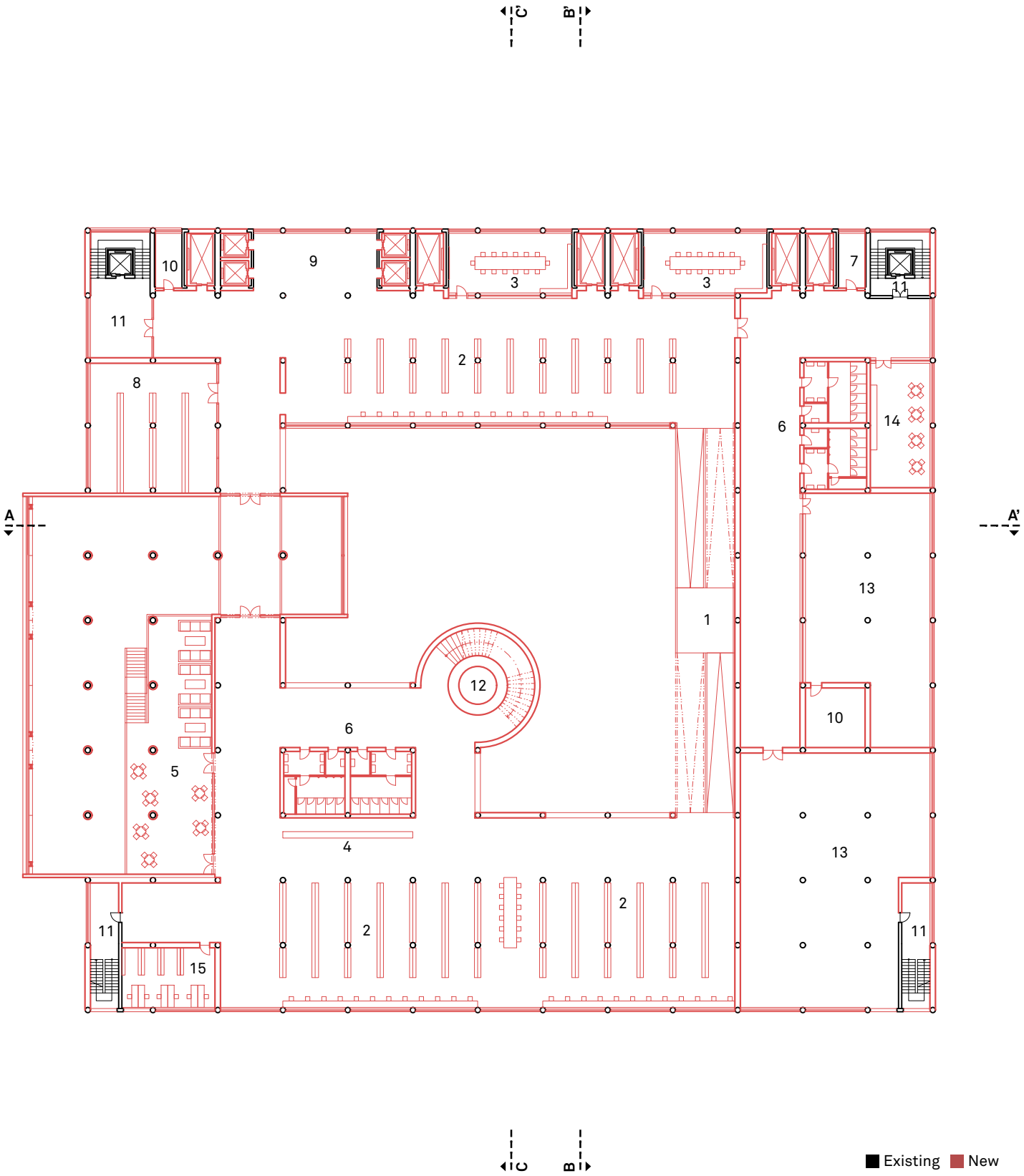
Existing New

1	Atrium ramps	8	Library storage
2	Library space	9	Main elevators
3	Study room	10	Storage
4	Library reception	11	Emergency escape
5	Library cafe	12	Main staircase
6	Toilets	13	IC Rentable space
7	Technical Room	14	Kitchen

0 20m

FLOORPLAN 5F - NEW

1:500



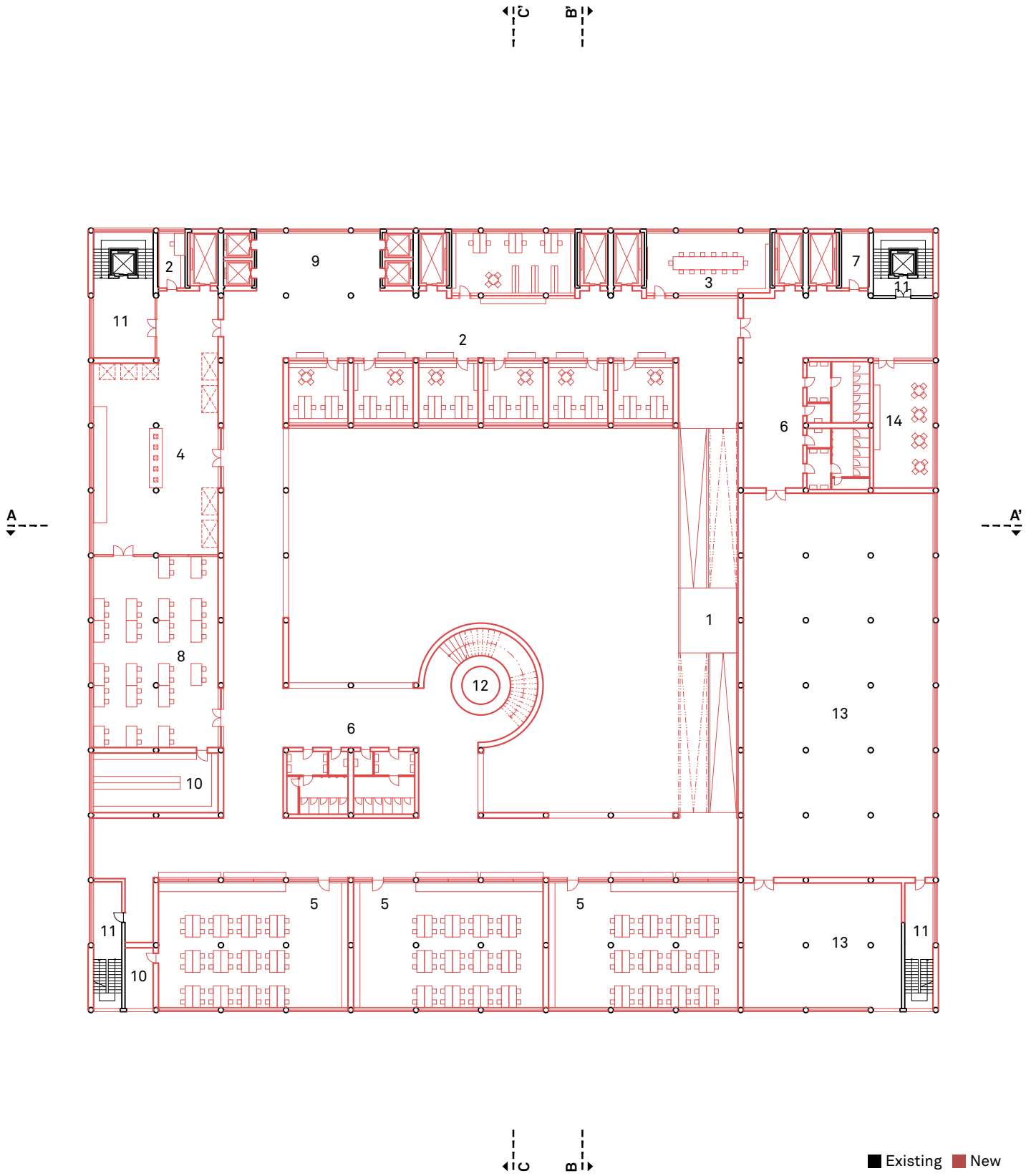
Existing New

1	Atrium ramps	8	Library storage	15	Library office
2	Library space	9	Main elevators		
3	Study room	10	Storage		
4	Library reception	11	Emergency escape		
5	Library cafe	12	Main staircase		
6	Toilets	13	IC Rentable space		
7	Technical Room	14	Kitchen		

0 20m

FLOORPLAN 6F - NEW

1:500

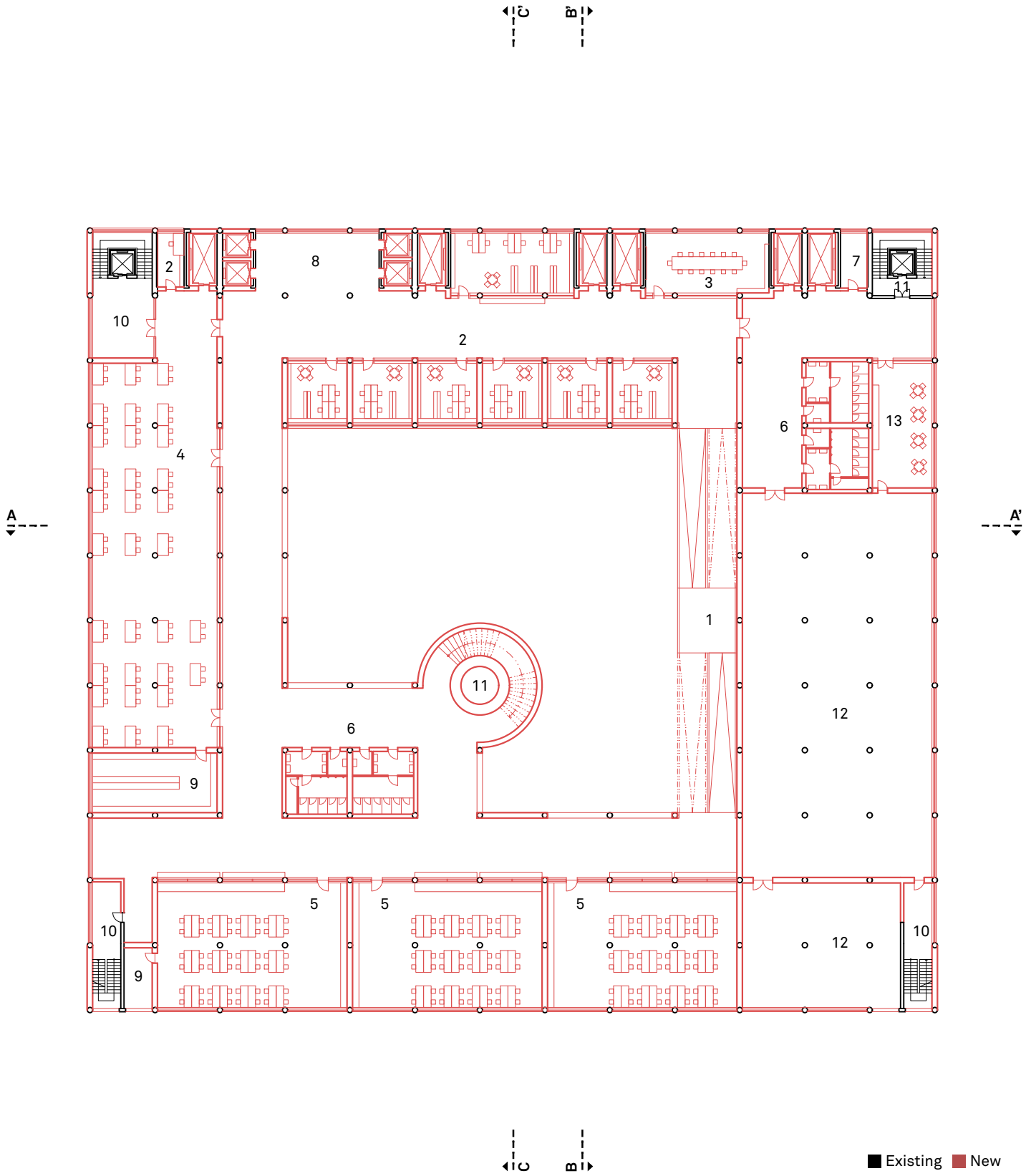


1	Atrium ramps	8	Workshop
2	Offices	9	Main elevators
3	Meeting room	10	Storage
4	Workshop / machinery	11	Emergency escape
5	Studio spaces	12	Main staircase
6	Toilets	13	IC Rentable space
7	Technical Room	14	Kitchen

0 20m

FLOORPLAN 7F - NEW

1:500



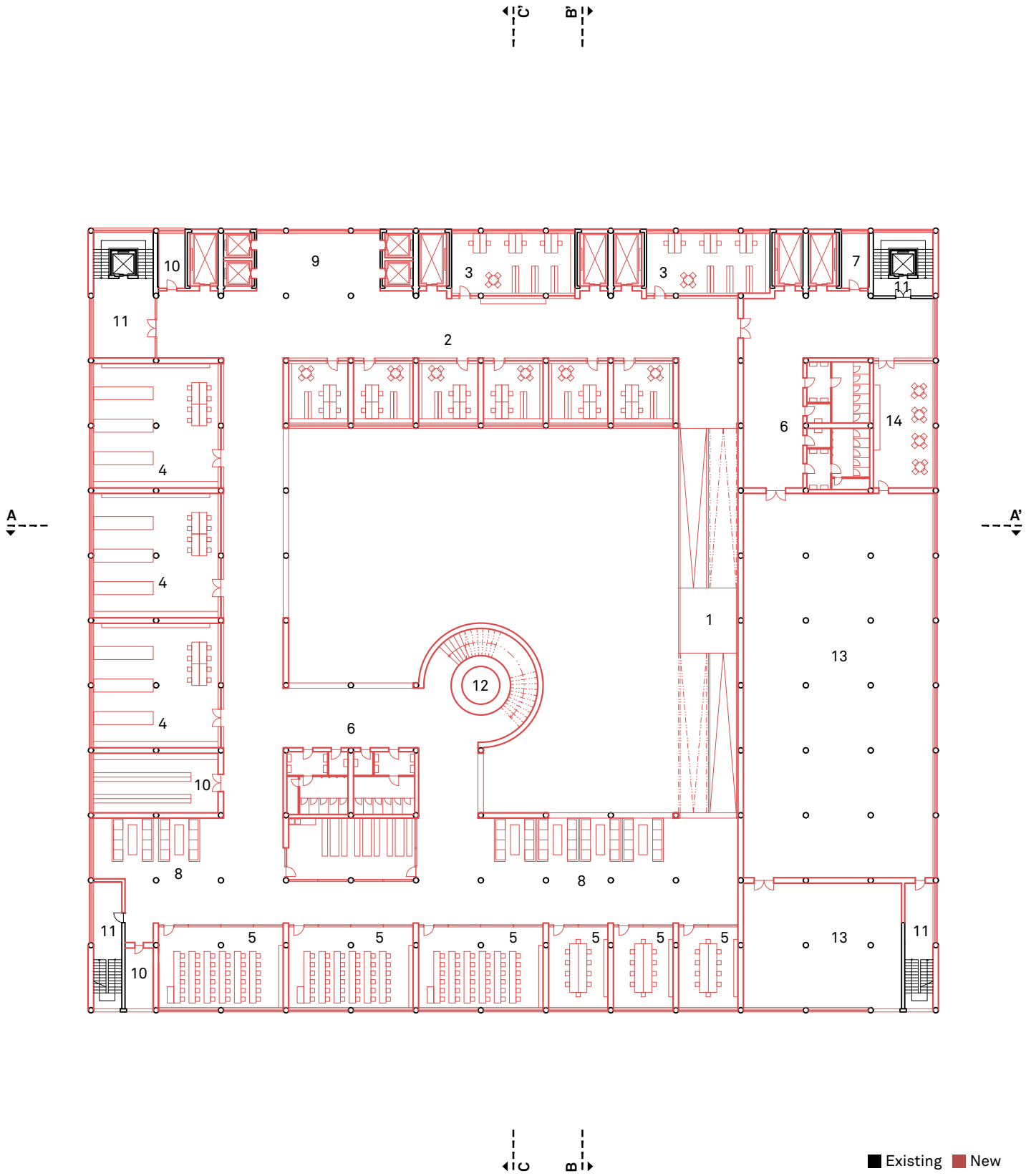
Existing New

1	Atrium ramps	8	Main elevators
2	Offices	9	Storage
3	Meeting room	10	Emergency escape
4	Workshop	11	Main staircase
5	Studio spaces	12	IC Rentable space
6	Toilets	13	Kitchen
7	Technical Room		

0 20m

FLOORPLAN 8F - NEW

1:500



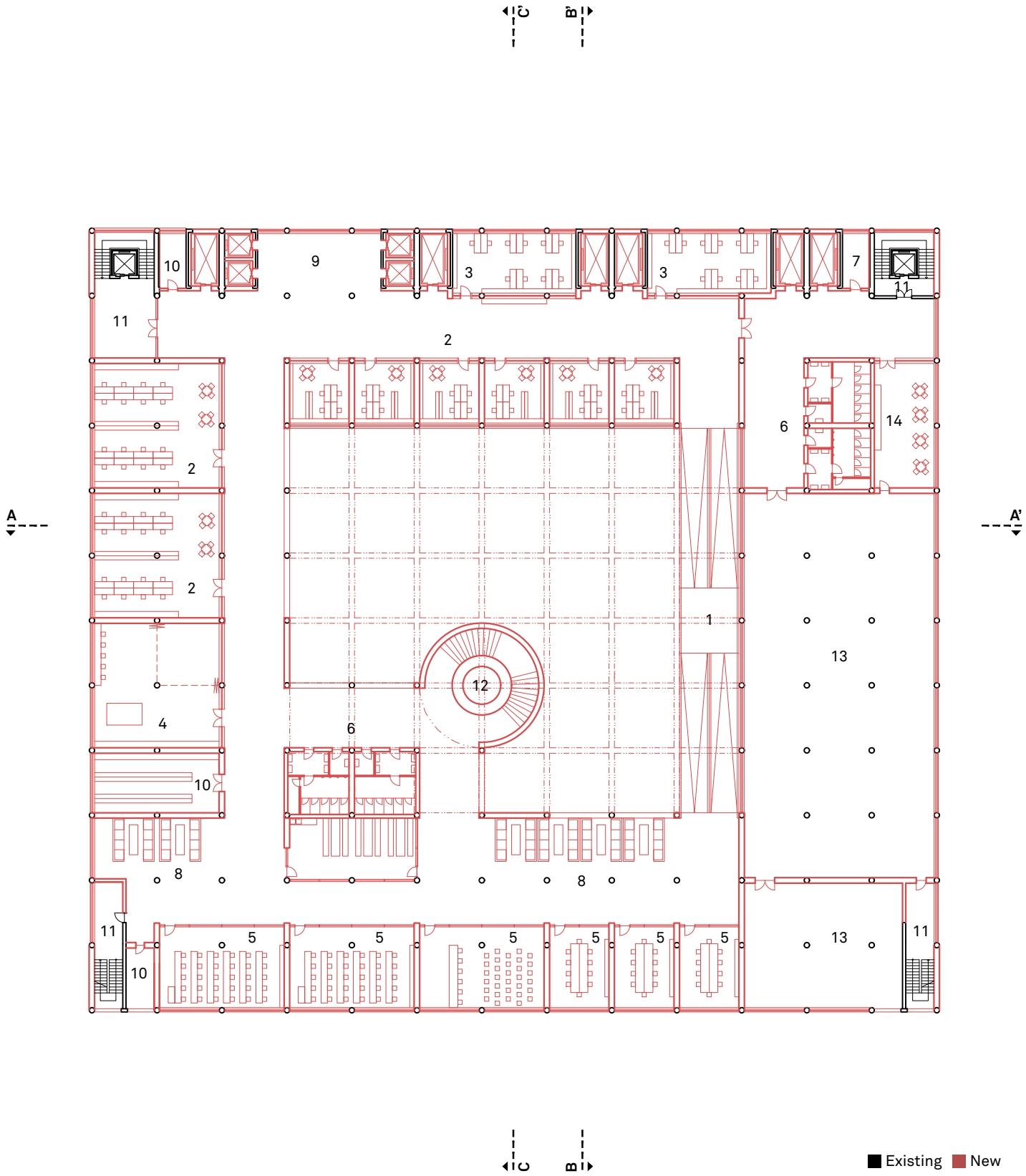
Existing New

1	Atrium ramps	8	Seating space
2	Offices	9	Main elevators
3	PhD candidate office	10	Storage
4	Workshop	11	Emergency escape
5	Lecture room	12	Main staircase
6	Toilets	13	IC Rentable space
7	Technical room	14	Kitchen

0 20m

FLOORPLAN 9F - NEW

1:500



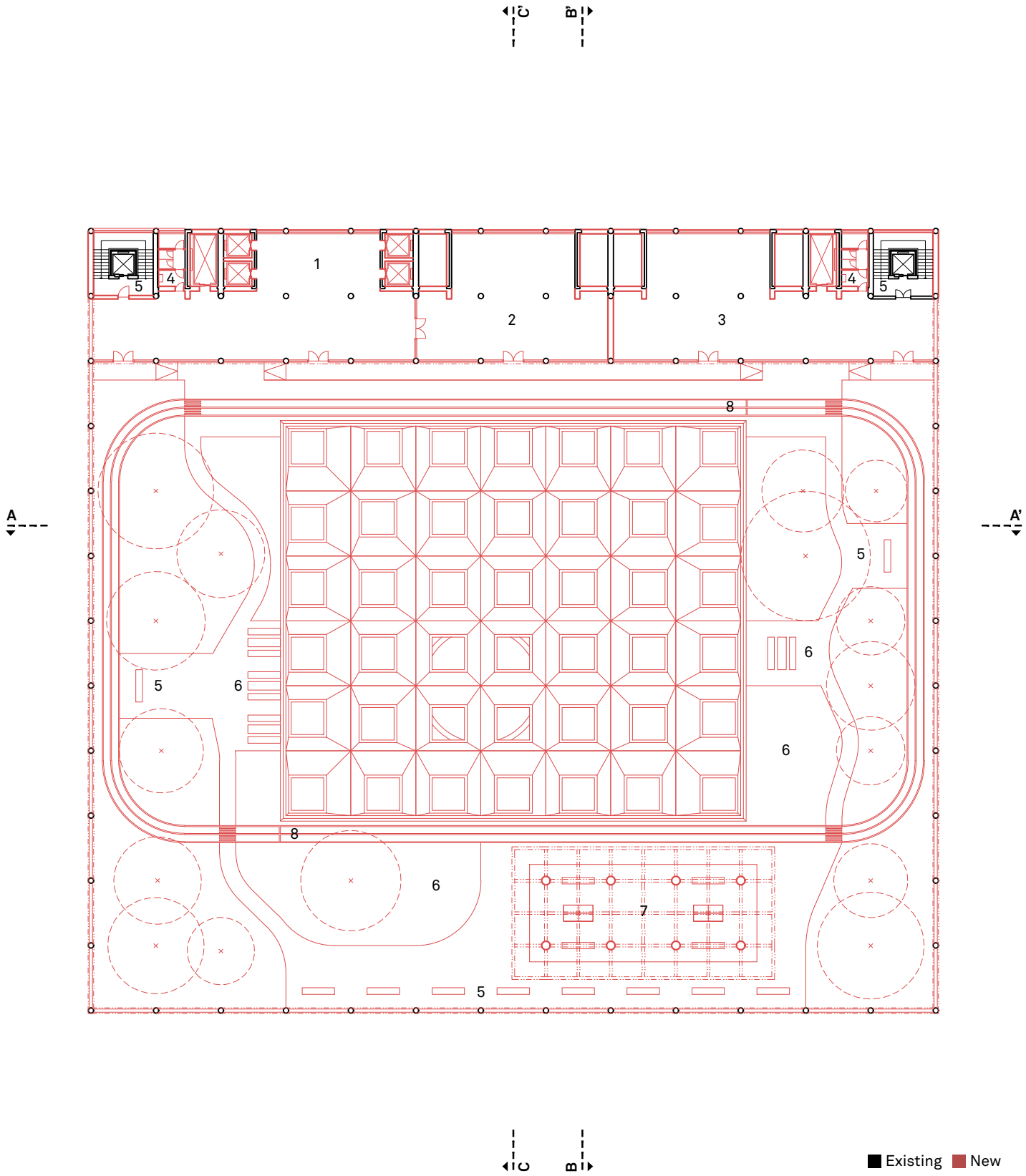
Existing New

1	Atrium ramps	8	Main elevators
2	Offices	9	Storage
3	PhD candidate office	10	Emergency escape
4	Technology workshop	11	Main staircase
5	Examination / lecture room	12	IC Rentable space
6	Toilets	13	Kitchen
7	Technical Room		

0 20m

FLOORPLAN 10F - NEW

1:500



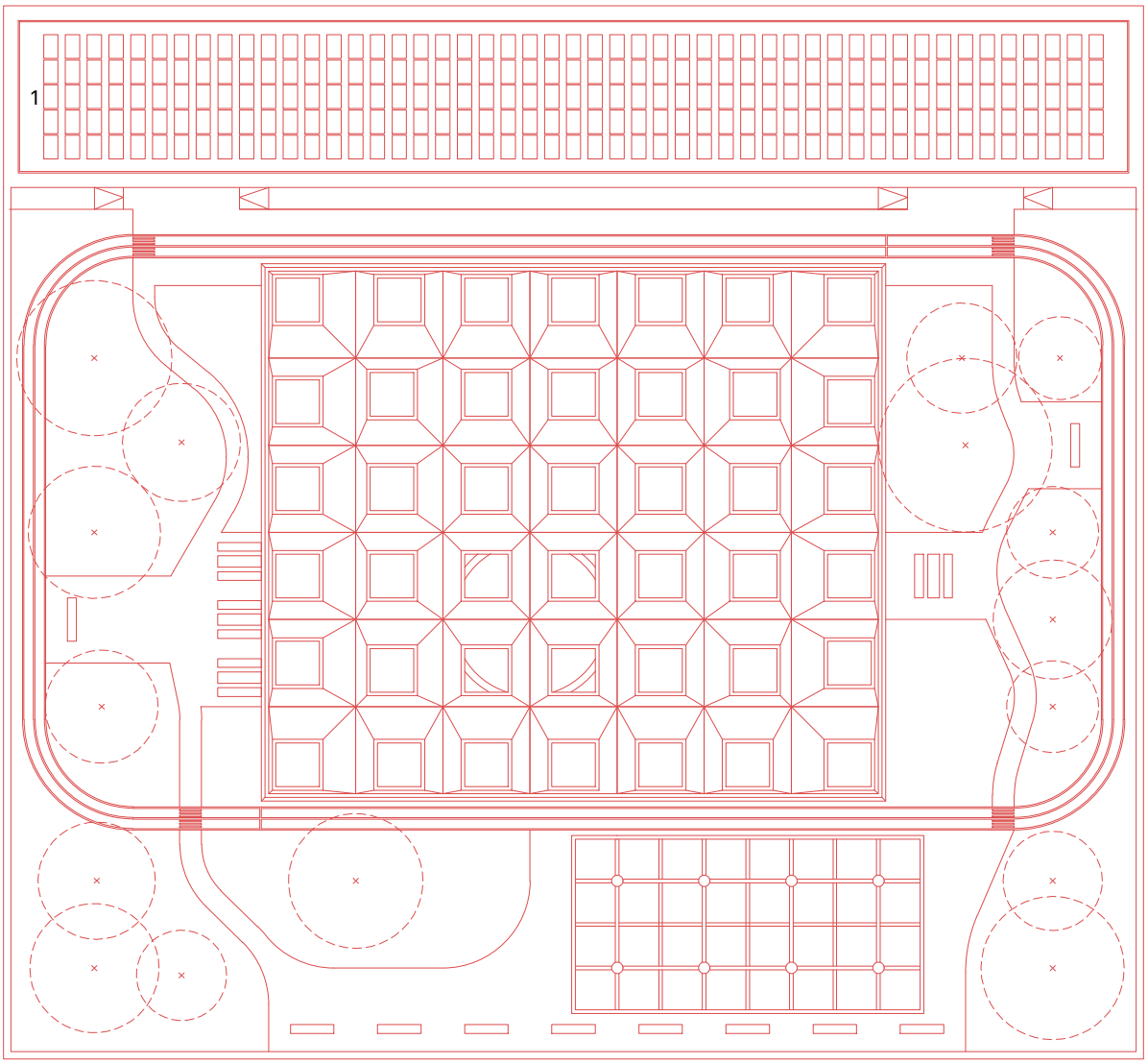
Existing New

1 Main elevators
2 Arts room
3 IC event space
4 Toilets
5 Viewpoint
6 Rooftop relaxing space
7 Sheltered space / ping pong
8 Running track

0 20m

FLOORPLAN 11F - NEW

1:500



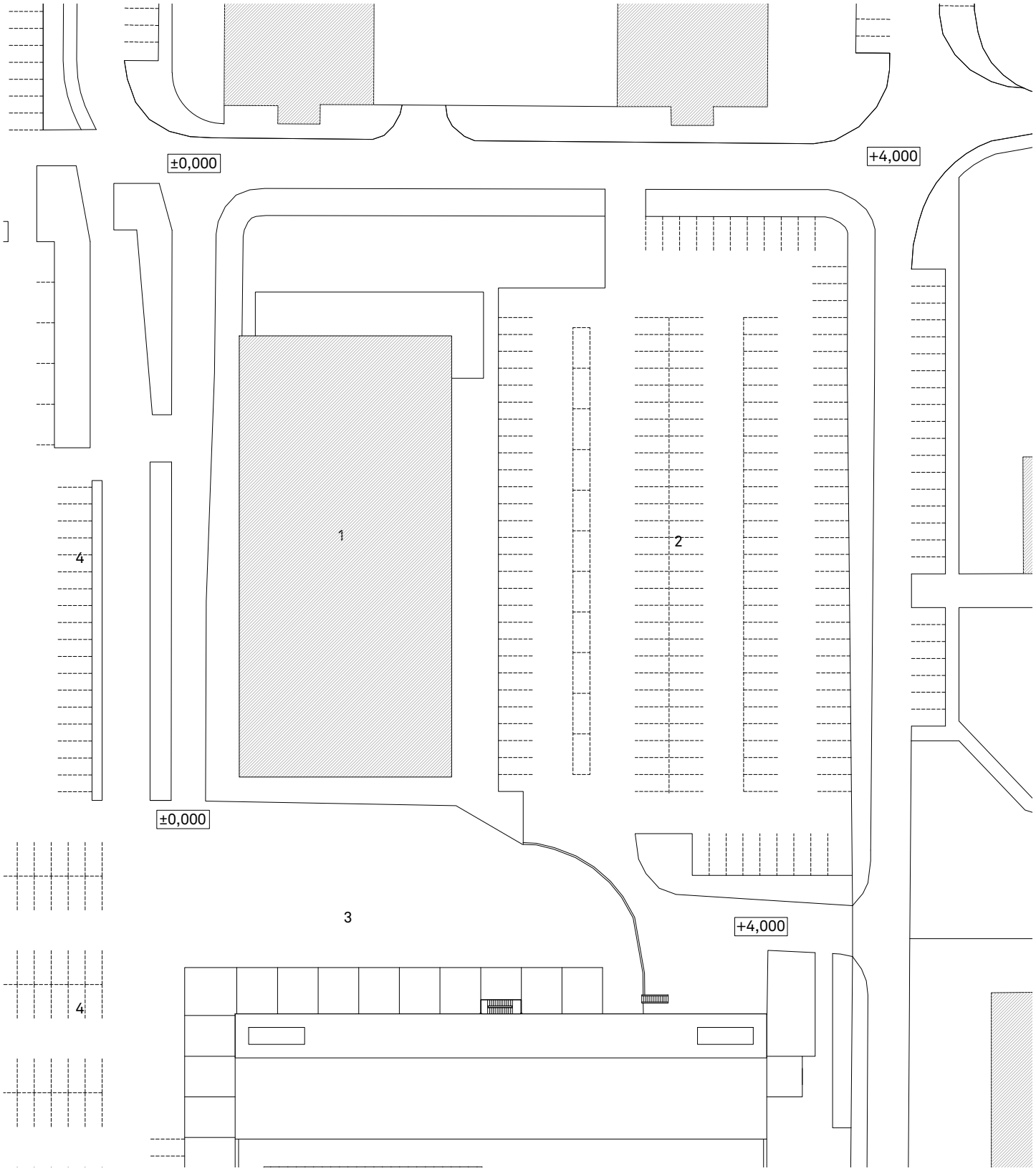
Existing New

1 Solar panels

0 20m

PUBLIC SQUARE - ORIGINAL

1:800

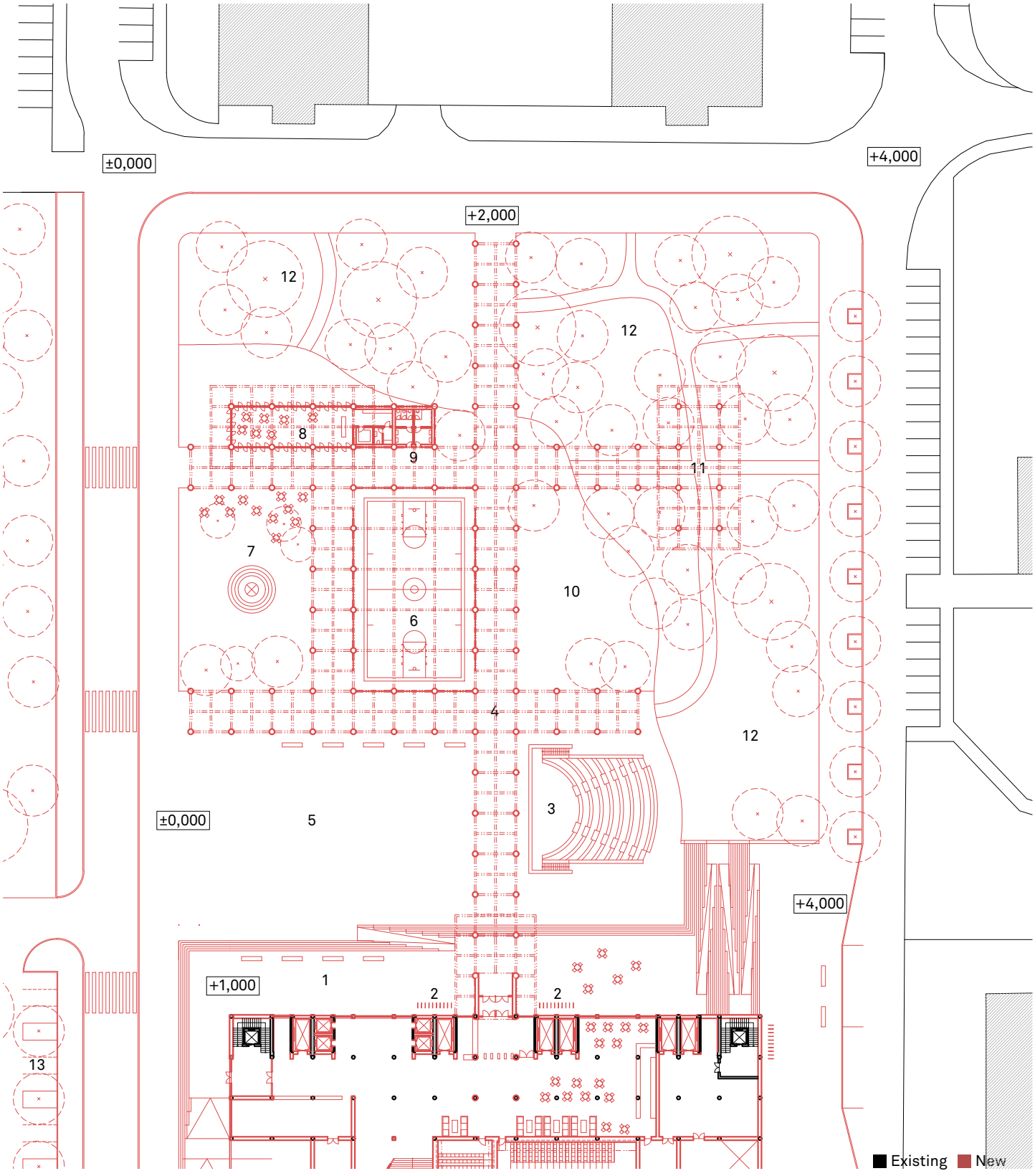


1 Temporary sports hall
2 Parking lot
3 Loading yard
4 Parking lot

0 20m

PUBLIC SQUARE - NEW

1:800

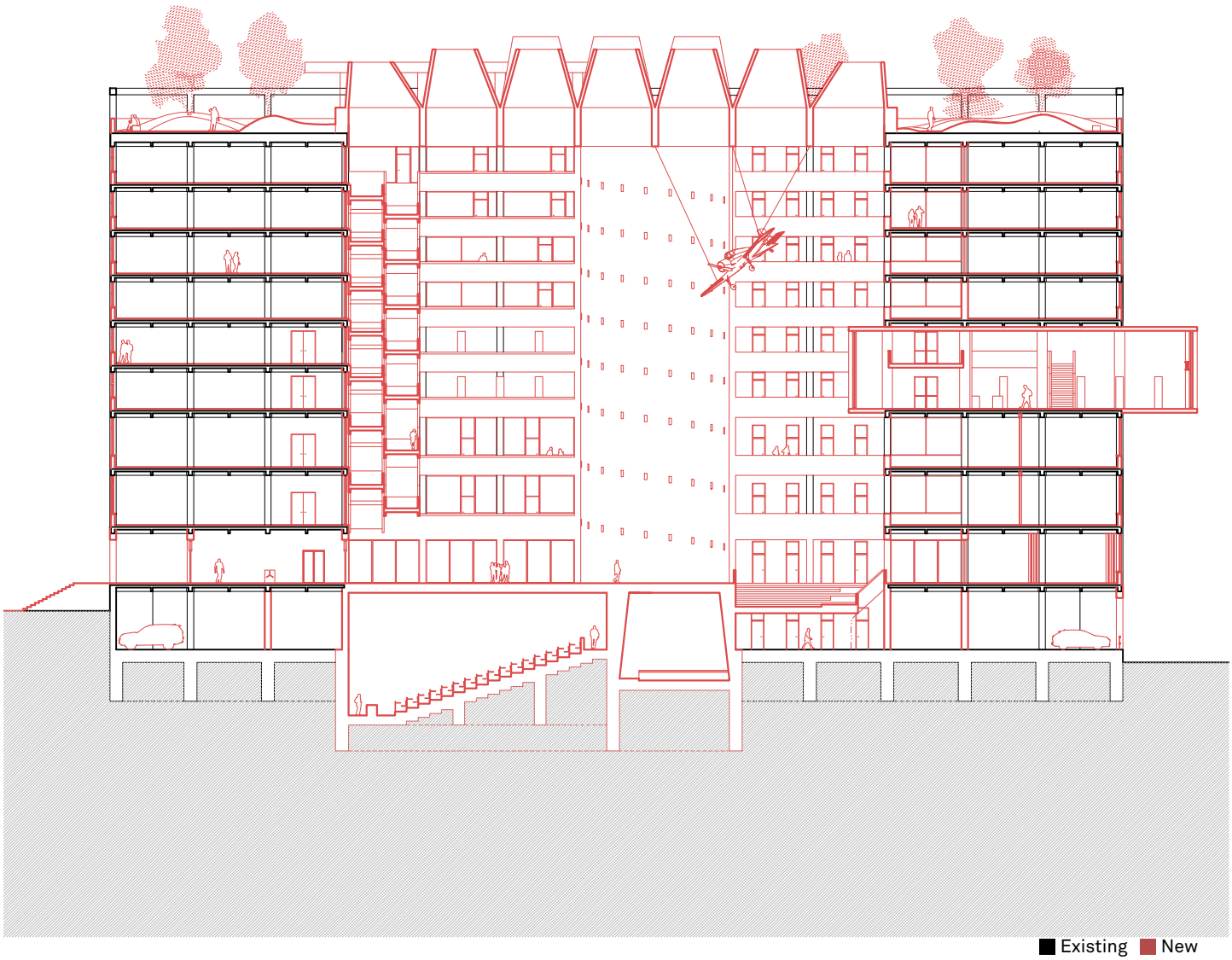


1 Entrance platform
2 Bike parking
3 Ampitheatre
4 Wooden collonade
5 Main outdoor event square
6 Outdoor basketball court
7 Frntišek Lýdie Gahura square
8 Cafe
9 Toilets
10 Main outdoor exhibition space
11 Park canopy
12 Park
13 Parking lot

0 20m

SECTION AA' - NEW

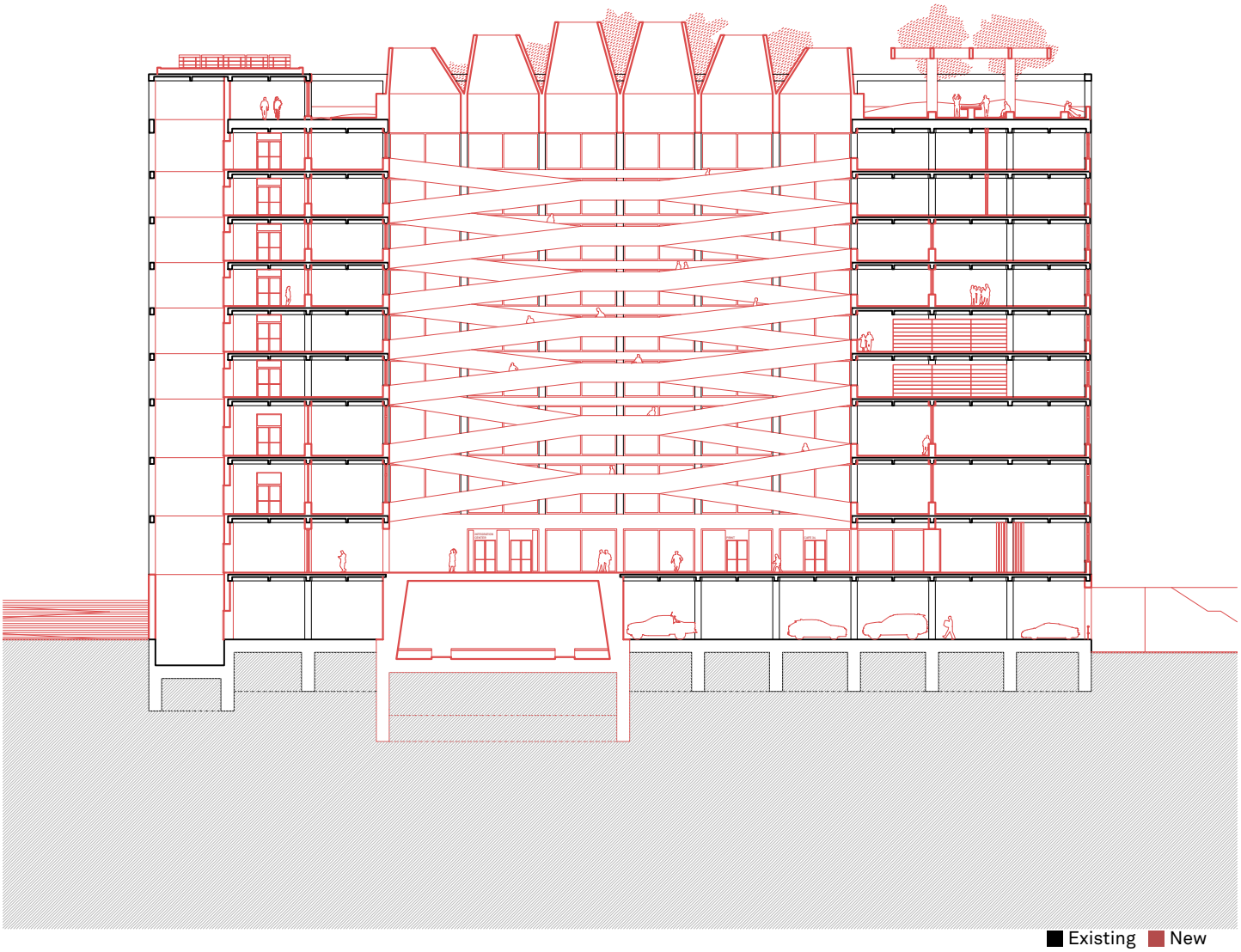
1:500



0 20m

SECTION BB' - NEW

1:500

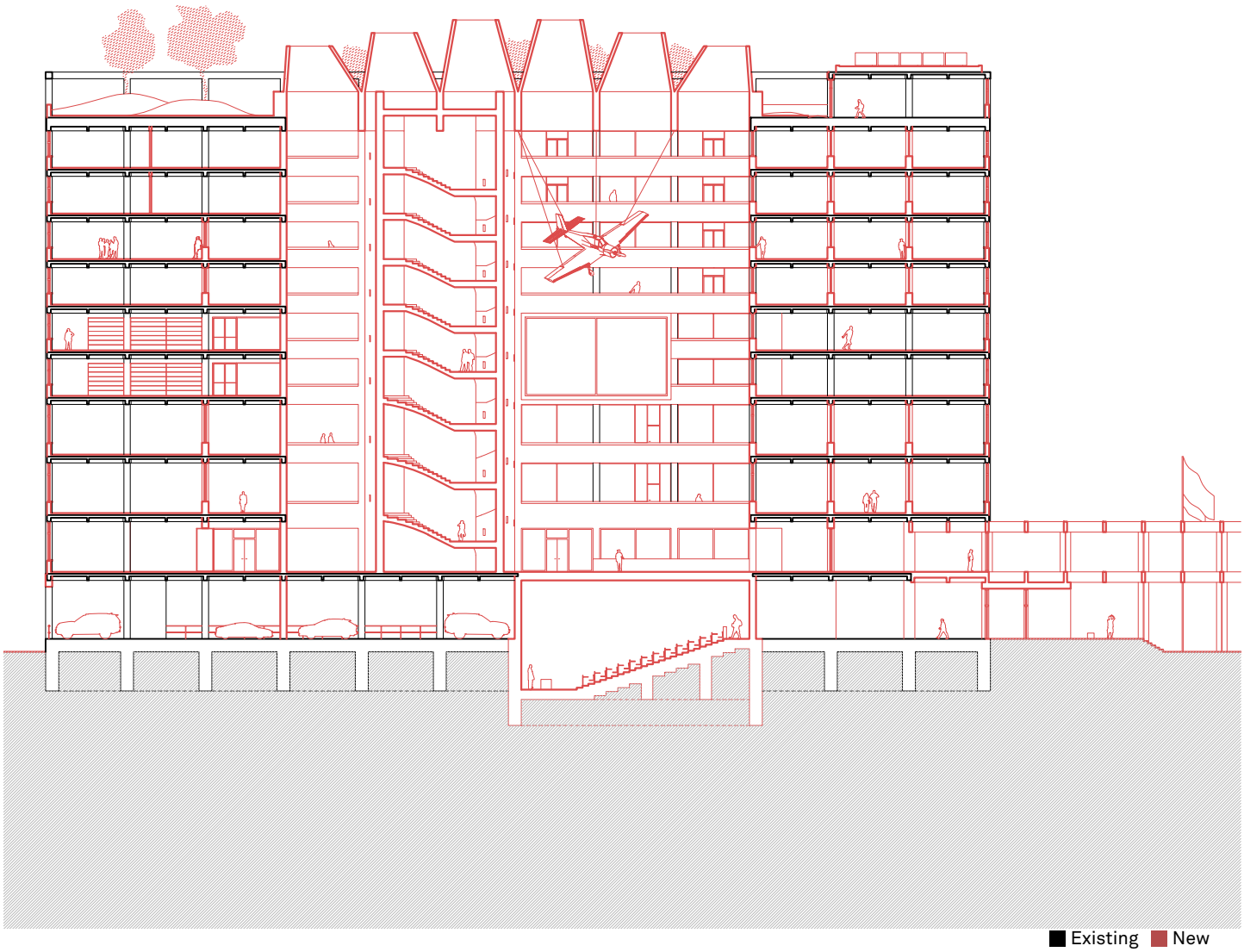


Existing New

0 20m

SECTION CC' - NEW

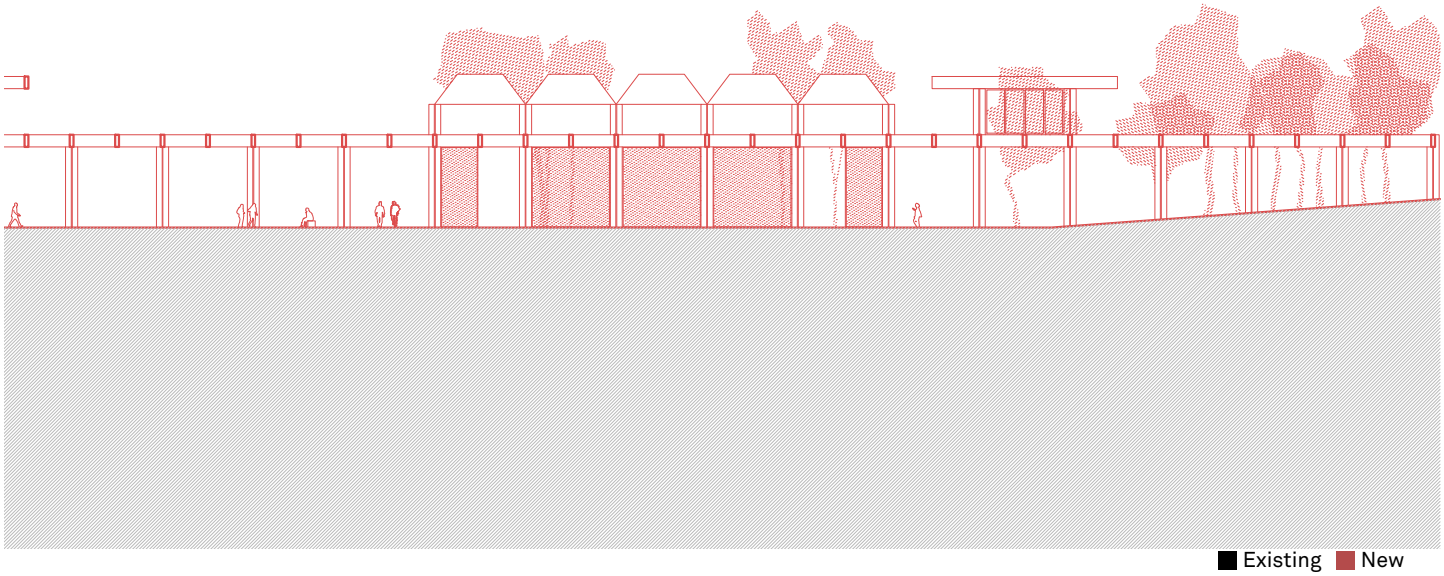
1:500



0 20m

SECTION CC' - NEW

1:500

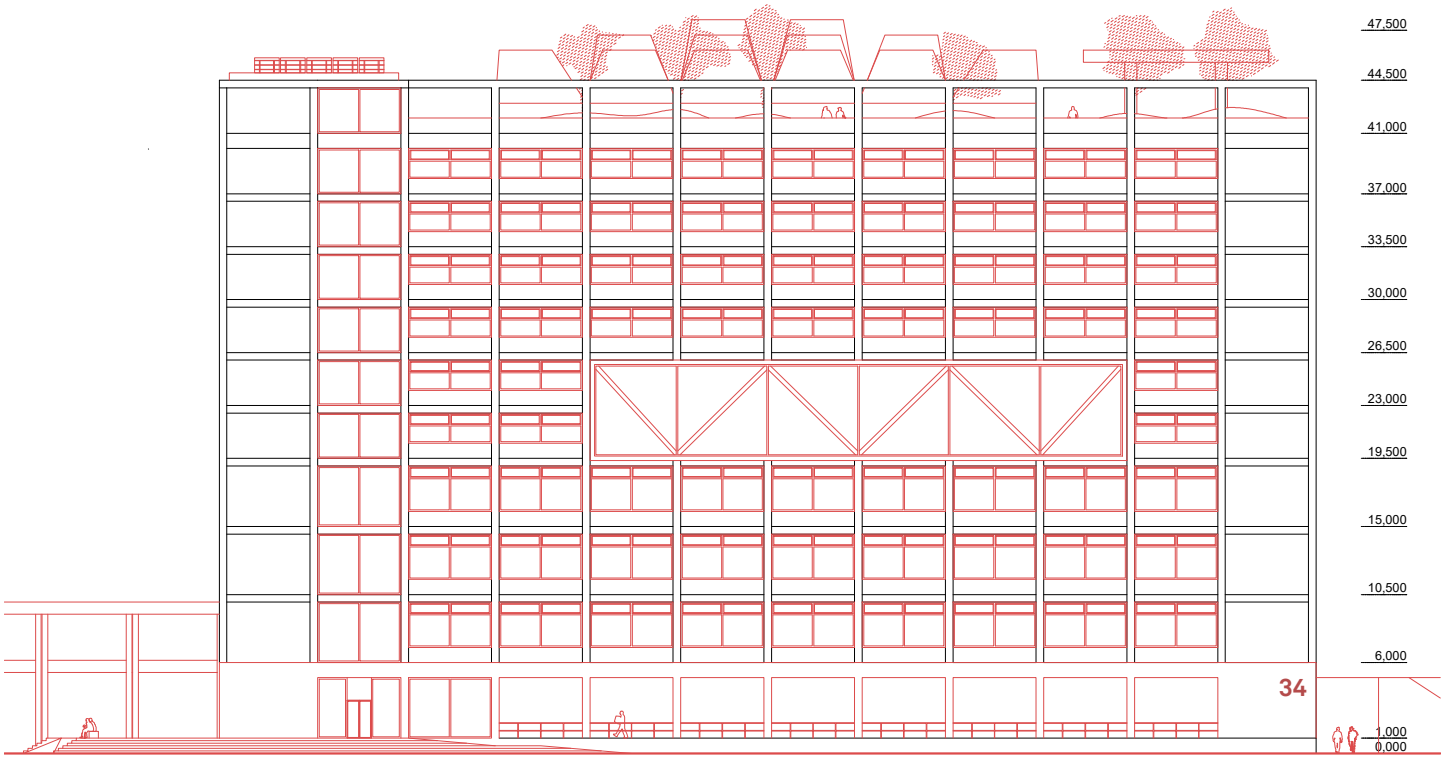


Existing New

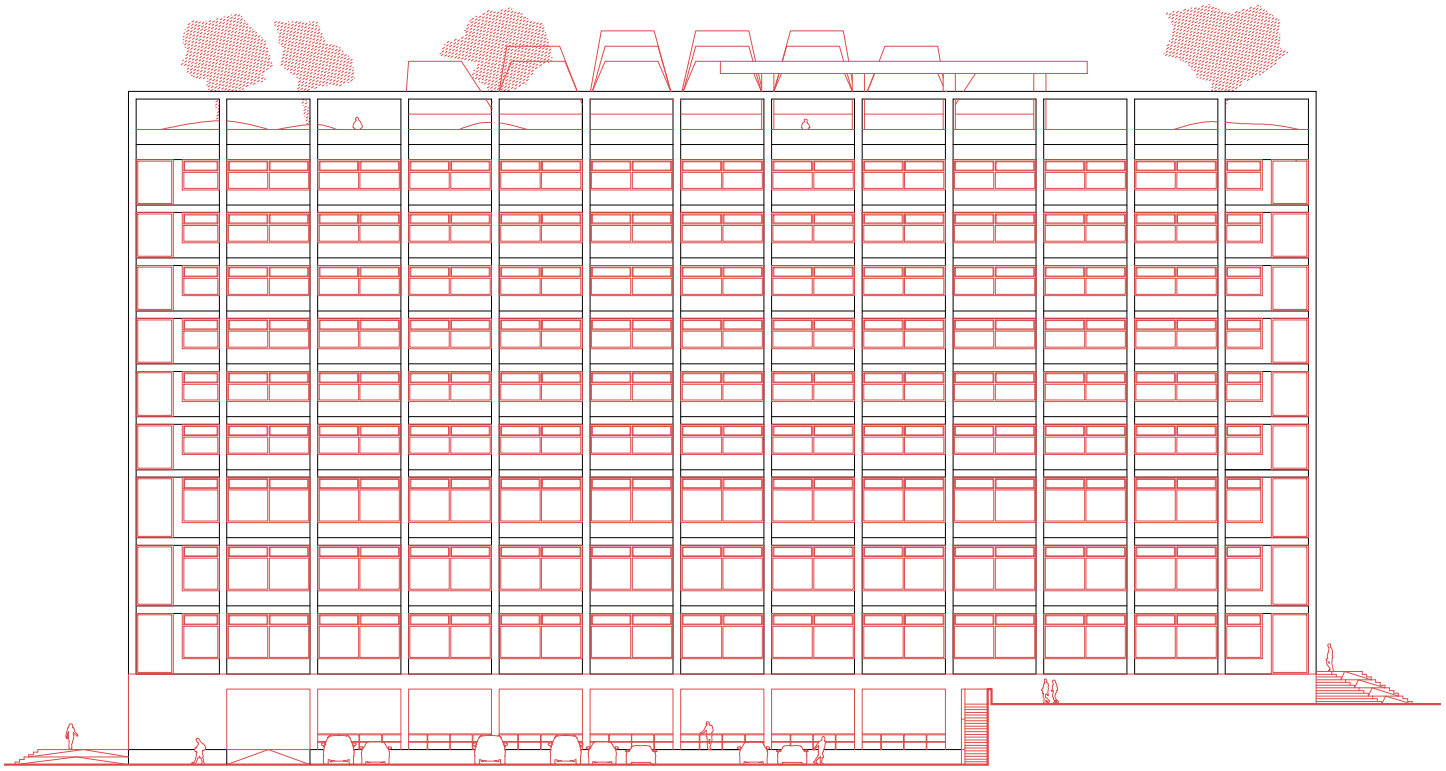
0 20m

ELEVATION NORTH - NEW

1:500



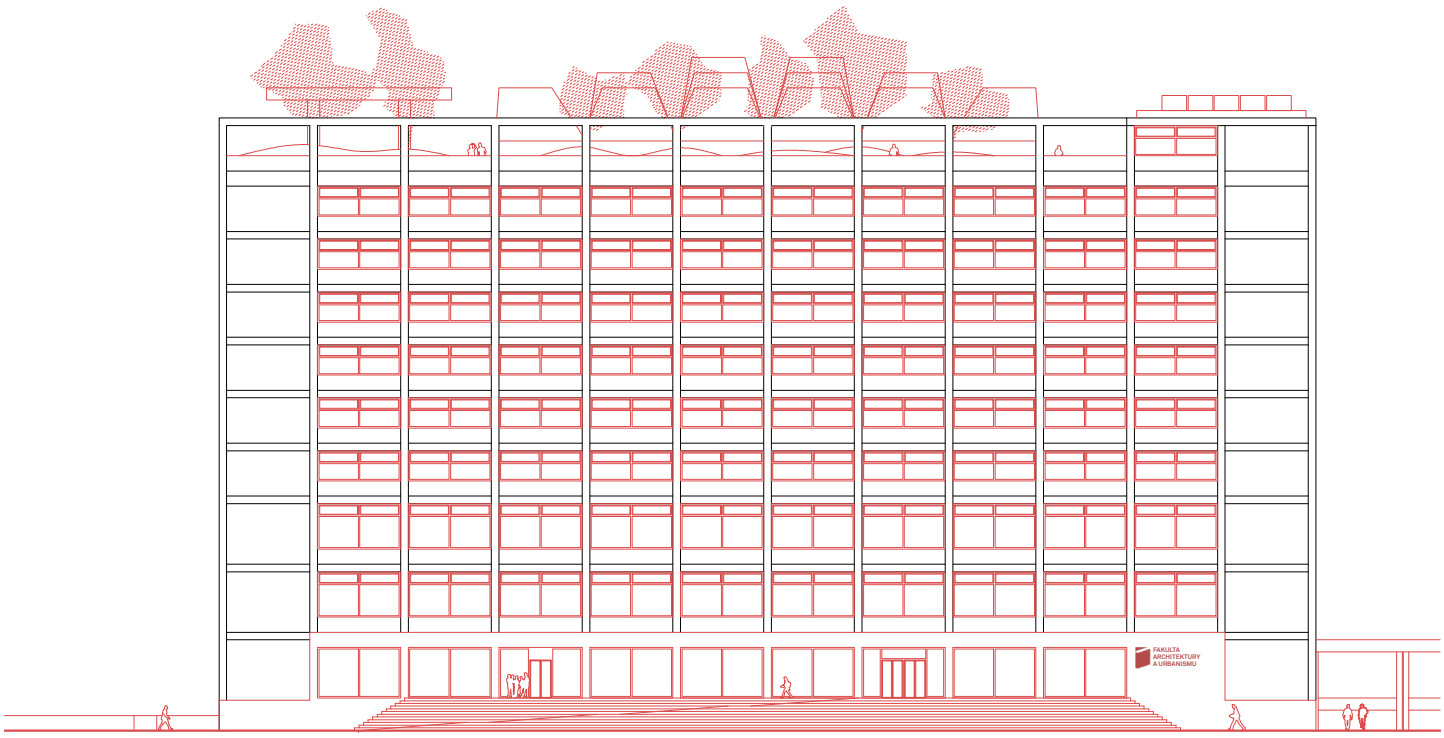
ELEVATION WEST - NEW



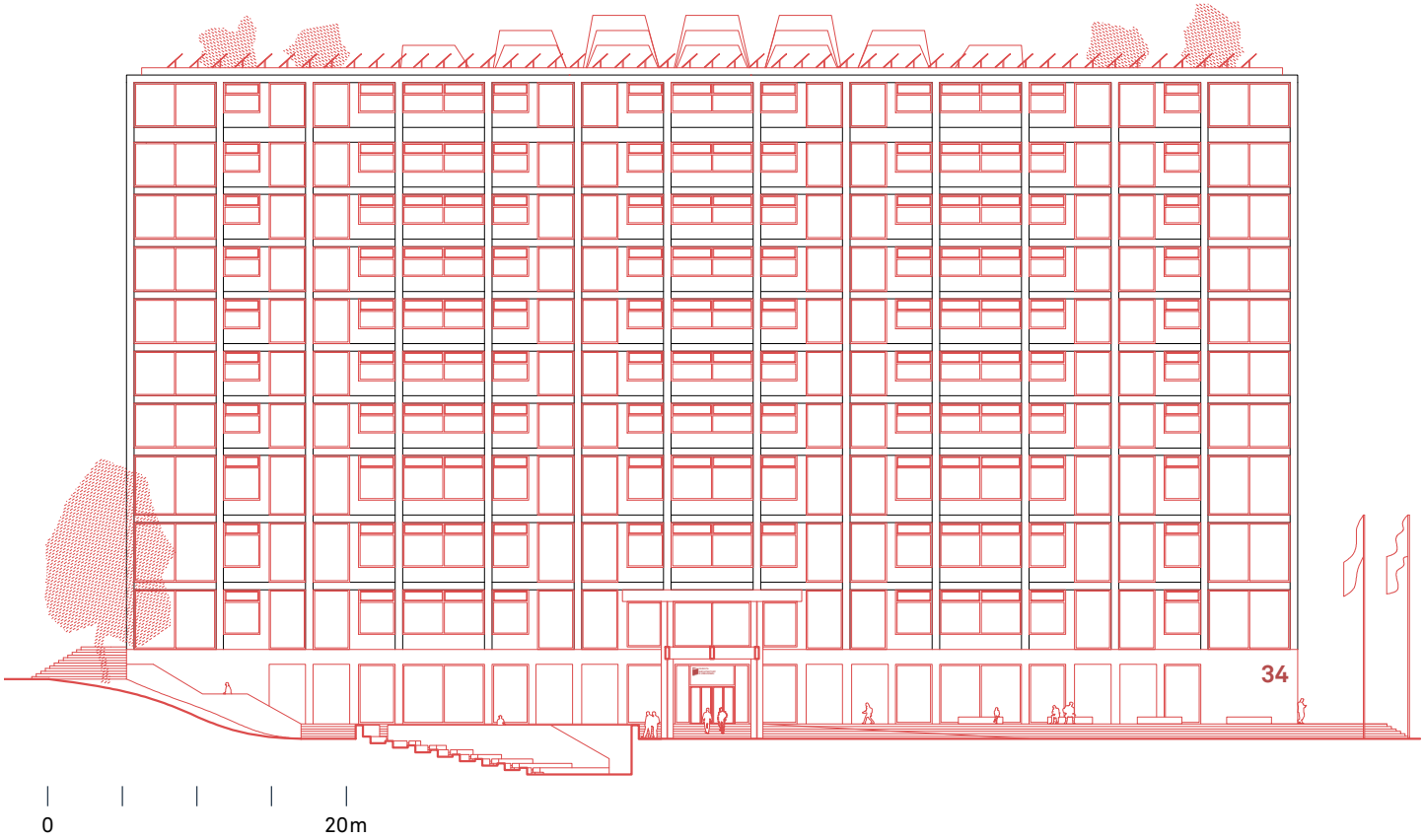
0 20m

ELEVATION SOUTH - NEW

1:500



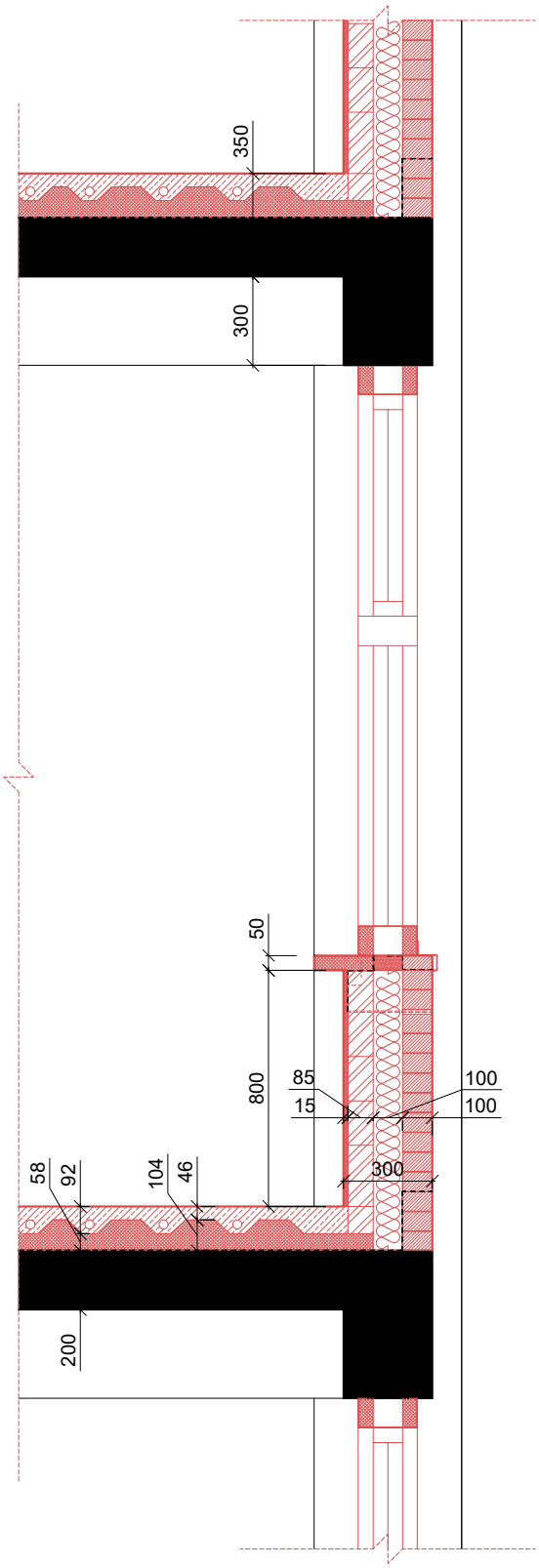
ELEVATION EAST - NEW



0 20m

DETAIL - NEW INFILLS AND FLOORS

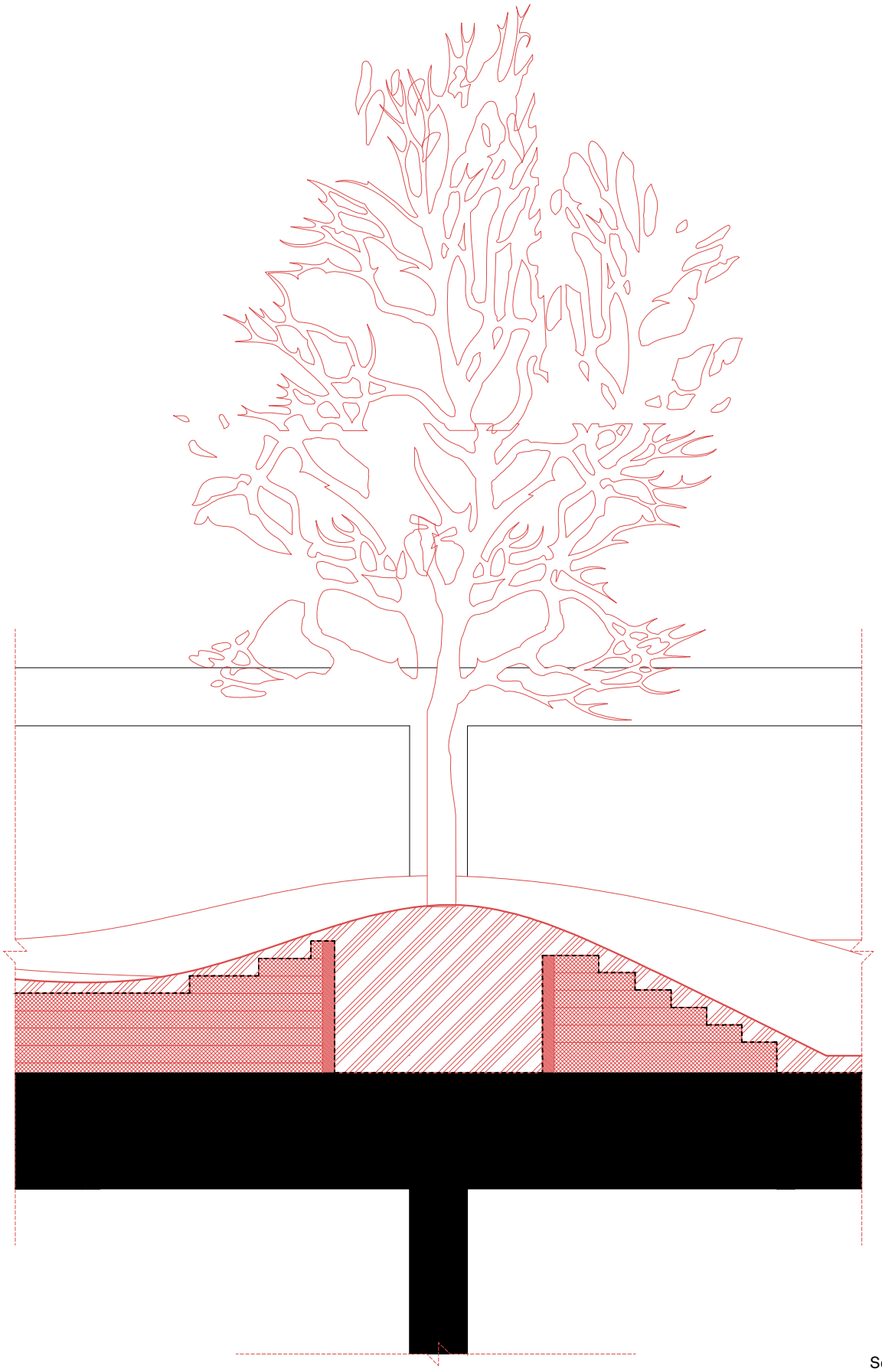
1:25



Concrete
Ceramic blocks
Brickwork
Plaster/wood
Rigid insulation
Foam insulation
Existing structure

DETAIL - ROOF SOIL MOUNDS

1:50



Soil
Wood
Rigid insulation
Existing structure

VISUALISATIONS


34

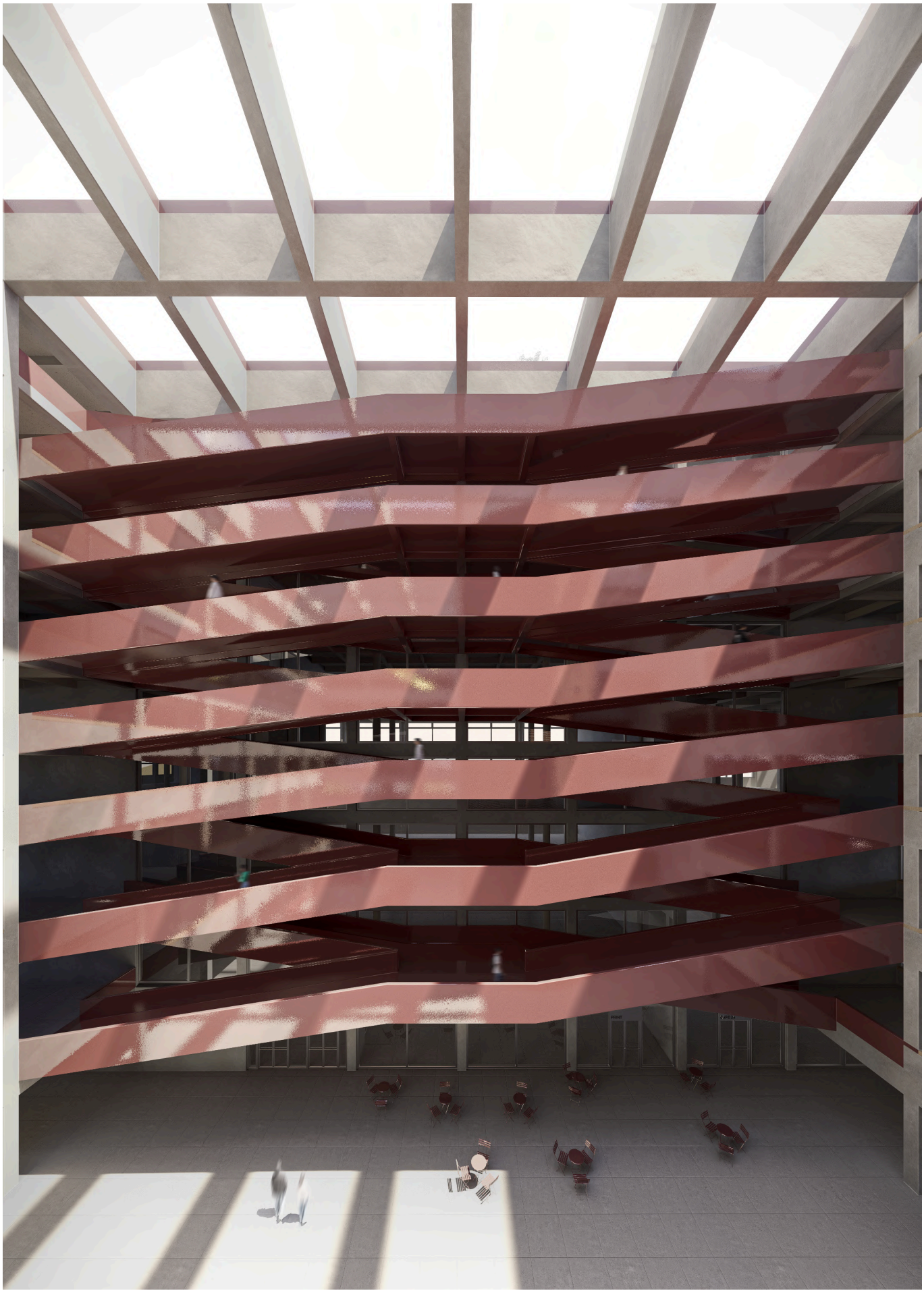

34

VISUALISATIONS

VISUALISATIONS


FAKULTA
ARCHITEKTURY
A URBANISMU
VÝSTAVA 2025
FAKULTA
ARCHITEKTURY
A URBANISMU

VISUALISATIONS



VISUALISATIONS

APPENDIX

SOURCES

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David Chipperfield Architects

2017

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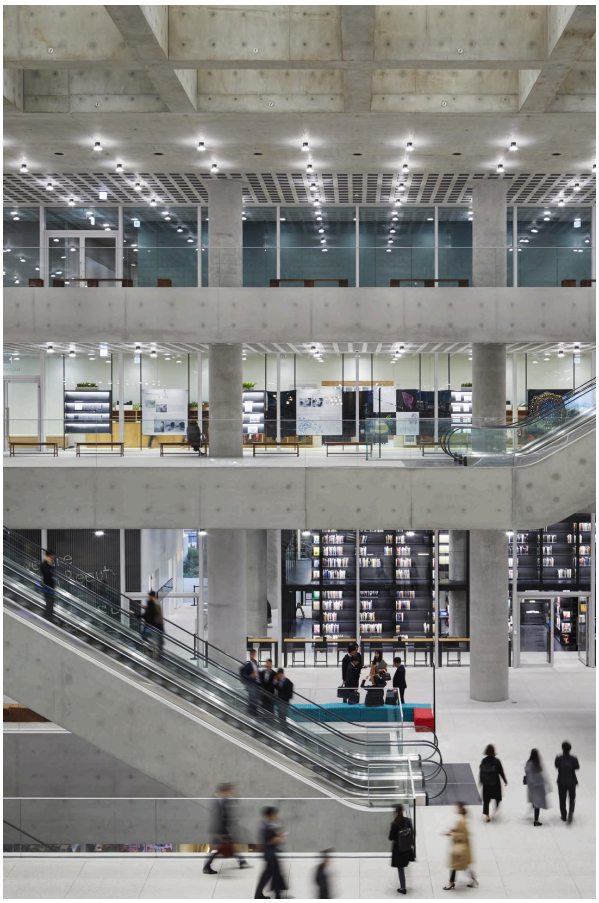

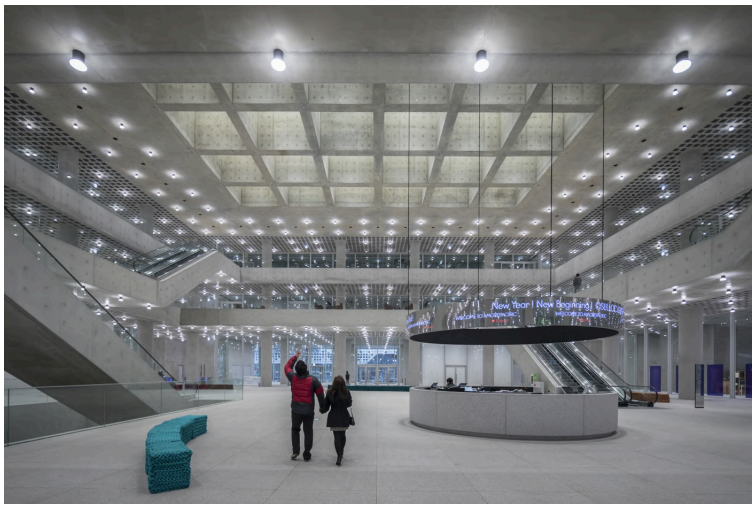

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Richard Meier

1995

Plaça dels Àngels 1, Barcelona, Spain

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Shekou Cultural and Sports Park

Tanghua Architects

2024

Shenzhen, China

West Village

Liu Jiakun

2015

Chengdu, Sichuan, China

CZECH TECHNICAL UNIVERSITY IN PRAGUE
Faculty of Architecture

International Office
Thákurova 9, 166 34 Prague 6, Czech Republic

Czech Technical University in Prague, Faculty of Architecture

DIPLOMA PROJECT APPLICATION FORM

Name and Surname: PAVEL JAROŠČÁK

Date of Birth: 11.07.2002

Academic Year / Semester: LS 2025

Department Number / Name: 15128

Diploma Work / Diploma Project Supervisor: Petr Kordovský

Diploma Work / Diploma Project Theme – title in English language:

University of Tomáš Baťa Expansion - Building 34 (UTB)

Signature of the Diploma Work / Diploma Project Supervisor:

The Student's Declaration:
I declare that I have fulfilled all the diploma work / diploma project initiation requirements stipulated by the "Study Plan" and "Study Rules" at the Faculty of Architecture, CTU in Prague.

In Prague on 20/02/2025 Signature of the Student

CZECH TECHNICAL UNIVERSITY IN PRAGUE
Faculty of Architecture

International Office
Thákurova 9, 166 34 Prague 6, Czech Republic

Czech Technical University in Prague, Faculty of Architecture

ASSIGNMENT of the Diploma project

Master degree

Date of Birth: 11.07.2002

Academic Year / Semester: 2024/25 - summer semester

Department Number / Name: 15128

Diploma Project Tutor: Petr Kordovský

Diploma Project Theme:

See the Application Form for DP

Assignment of the Diploma Project:

1/description of the project assignment and the expected solution objective

2/description of the final result, outputs and elaboration scales

3/list of further agreed-upon parts of the project (model)

To this list further attachments can be added according if necessary.

Date and Signature of the Student:

Date and Signature of the Diploma Project Tutor:

Date and Signature of the Dean of FA CTU:

1) This project will aim to further the ongoing regeneration of the former Baťa company and Svit industrial complex in Zlín, CZ. It will target the largest building in the complex, building 34, a central shoe storage building, now still used as such, with office functions now present as well. The project will turn this building into a new faculty of the University of Tomáš Baťa through adaptive reuse, and regeneration of its surroundings. I have proposed the creation of a new faculty of architecture and urbanism or civil engineering, which I have justified in my diploma seminar work with Zlín's unique history regarding these fields of study, the city's opportunity to act as a hands-on case study, and Zlín's advantageous location within central Europe which provides an opportunity to manifest a broadly international student body. This project would also include a ~~creation of a~~ dorm building to facilitate the new faculty, ~~either~~ most likely another ~~reuse~~ case of adaptive reuse of a building in the industrial complex which shall be ~~determined after careful~~ picked later on.

The project shall also act as a direct alternative to the City's current plans for this building and its surrounding area.

2) The final output will include a portfolio ~~with~~ comprised of texts/reports, documentation of the project (plans, sections, elevations, details and situations), visualizations and descriptive diagrams. ~~It will also include~~ A part of the final output will also be 2 A1 posters designated for the final defense and exhibition of the project. The diploma seminar will be presented along with the diploma work in the portfolio.

3) A ~~created~~ model in an appropriate scale will accompany the final output.

CZECH TECHNICAL UNIVERSITY IN PRAGUE
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CTU
CZECH TECHNICAL UNIVERSITY IN PRAGUE

CZECH TECHNICAL UNIVERSITY IN PRAGUE
FACULTY OF ARCHITECTURE

AUTOR, DIPLOMANT: Bc. Pavel Jaroščák
AUTHOR OF THE DIPLOMA WORK / DIPLOMA PROJECT
Academic Year 2024/25, LS Semester

TITLE OF THE DIPLOMA WORK / DIPLOMA PROJECT
(IN CZECH LANGUAGE) Univerzita Tomáše Bati - Fakulta Architektury a Urbanismu

TITLE OF THE DIPLOMA WORK / DIPLOMA PROJECT
(IN ENGLISH LANGUAGE) University of Tomáš Baťa - Faculty of architecture and Urbanism

LANGUAGE OF THE DIPLOMA WORK / DIPLOMA PROJECT: English

Diploma Work / Diploma Project Supervisor	Ústav: Department 15128 doc. Ing. arch. Petr Kordovský
Diploma Work / Diploma Project Opponent	Ing. arch. Tomáš Hořava
Key Words (Czech)	Adaptive reuse, university, brownfield, public space
Annotation (Czech)	Tématem této práce je adaptivní znovuvyužití a rekonstrukce budovy 24, masivního skladu ve Zlíně, a jejího okolí na fakultu architektury a urbanismu. Motivací této práce je snaha o nalezení řešení pro zlínský brownfield a prozkoumání jeho potenciálu.
Annotation (English)	The topic of this work is the adaptive reuse and reconstruction of Building 24, a massive warehouse in Zlín, and its surroundings into a faculty of architecture and urbanism. The motivation behind this work is to try to find a solution to Zlín's brownfield and explore its potential.

The Author's Declaration
I declare that I have elaborated the submitted diploma work / diploma project independently and that I have stated all the used information sources in coherence with the "Methodological Instruction for Ethical Preparation of University Final Works".
(The complete text of the methodological instruction is available for download on http://www.fa.cvut.cz/En)

In Prague on 24/05/2025 .....Signature of the Diploma Project Author

This document is an essential and obligatory part of the diploma project / portfolio / CD.

UNIVERSITY OF TOMÁŠ BAŤA - FACULTY OF ARCHITECTURE AND URBANISM

Master's Diploma Work

Author: Bc. Pavel Jaroščák

Studio Kordovský

Studio leader: doc. Ing. Arch. Petr Kordovský

Studio assistant: Ing. arch. Ladislav Vrbata

FA ČVUT

Department number: 15128

LS 2024 /2025